The Journal of the American Medical Association

VOL. XXXV. CHICAGO, ILLINOIS, OCTOBER 27, 1900. No. 17.

Original Articles.

LARNYGEAL STENOSIS DUE TO COMPLICATION OF THE THYROID CARTILAGES.*

EMIL MAYER, M.D.

Surgeon to the New York Eye and Ear Infirmary (Throat Dept.); Fellow of the American Laryngological Assn., etc.

NEW YORK.

In November, 1898, Private Jacob H. M., Fourth U. S. Infantry, came under my observation. He was entirely aphonic and breathed through a tracheotomy tube. With pencil and paper all queries were intelligently answered and the following history was elicited:

He was in the second year of a second enlistment. While lying down on the fighting line at the battle of El Caney, July 2, 1898, he received a wound over the right frontal bone, from a Mauser bullet. His sensations at that time were such as follow a stunning blow, though there was no loss of consciousness, for he remembered everything that occurred. There was some slight bleeding from the bullet's point of impaction and very profuse bleeding from the mouth and nose. There was a sensation of rasping as though a saw was passing up and down through his head on the right side, and he had difficulty in getting air enough, for it seemed to escape somewhere before it got into his lungs. With it all he had a severe chill.

In about three hours litter-bearers arrived and carried him to a field-hospital, where his wound was dressed. Some water given him produced strangling and he found that he could not swallow; his thirst was assuaged by moistening a piece of gauze and placing it between his teeth, the jaws were quite firmly wedged together by this time. The jaws slowly relaxed and six days later, July 8, he was able to swallow a little at a time. A long string of tissue hung from his mouth; this he pulled away with his fingers. He had been transferred first to the division hospital and then to the ship *Relief*. On board the ship he began to eat, but not without strangling. He was then placed aboard the transport ship *Seneca* for return to this country. There the fare consisted of hardtack and coffee, and after three days bacon was added; some of this he swallowed. During all this time he had not slept six hours because of constant noises in his head. On July 26, 1898, he landed, and was sent with other wounded soldiers to a general hospital in New York City. He described a terrible choking sensation occurring soon after his admission to the hospital, following an attempt to swallow whisky and oil. His breathing was always difficult at that time; a walk of ten paces exhausted him. His breathing became more difficult each day, and on August 3 tracheotomy was performed, followed by complete relief. His dysphagia was much better, and he partook of solid food. One night while at stool, after much straining, a metallic substance passed from his rectum; no attempt was made to recover it. His history obtained from this hospital is as follows:

Soldier U. S. A., age 25, admitted July 26, 1898. Father living, good health. Mother died at 57 of typhoid fever, three brothers living aged 34, 30, 19, in good health. Two sisters, 28, 20, good health.

Personal history:—He had typhoid fever in 1894; general health good; on July 1 at El Caney was shot with Mauser bullet above right eye, *glancing wound;* dressed at division hospital and recovered rapidly; was exposed to rain-storm shortly after, and from that time has been very hoarse, expectorated considerably, voice husky; on admission was hoarse and later on inspiration there was a retraction of the supra- and infraclavicular spaces, with considerable difficulty in breathing. Dyspnea increased and on August 3 tracheotomy was performed under cocain, followed by relief to dyspnea. Diagnosis: "Stricture larynx."

December 5 he was transferred to New York Eye and Ear Infirmary.

Examination:—Over the frontal bone on the right (Fig. 1) there is a scar 20 mm. in length and 5 mm. in breadth. The lowest point is 3.5 mm. from the external canthus and curves to a point about 4 mm. from the center of the supraorbital notch. In the pharynx there is a notable absence of the greater portion of the posterior fold of the soft palate on the patient's right, some of it near the uvula and again near the tonsil being present. It presents the appearance of being gouged out. Alongside the tonsil is a line of reddened tissue which looks as though this fold had descended and become adherent. The left side is entirely normal.

Laryngoscopic examination:—A mass of mucus lies within the larynx, which is very tenacious and difficult of removal. An infundibulum is seen closed tightly and not even admitting a small probe. No air passes through. The inner walls of the larynx bulged at the center and the lowest portion was on a line with the site of the false vocal cords. There are no voice sounds whatever.

The clean-cut hole in his soft palate and the comminuted appearance of his larynx, together with his history, led to the diagnosis of a stenosis due to gunshot wound, the bullet taking a most remarkable course.

Instead of his having had a glancing wound, as all surgeons heretofore had believed, the bullet entered directly alongside and over the eye. It then went through the superior maxilla downward and backward, cut through the posterior portion of the soft palate and entered the neck. Here it became deflected, probably by the hyoid bone, and entered the thyroid cartilage, thoroughly comminuting it, cutting into the esophageal wall where, being spent, it dropped into the stomach. It probably passed from the intestines some time in August, while at the general hospital. Fluorscopic examinations and Roentgen-ray photographs failed to reveal the presence of any foreign body in the neck. He was

*Presented to the Section on Laryngology and Otology, at the Fifty-first Annual Meeting of the American Medical Association, held at Atlantic City, N. J., June 5-8, 1900.

admitted to the service of Dr. Morris J. Asch, who agreed with my diagnosis and kindly placed him in my charge. Under cocain anesthesia attempts were made to pass the hard-rubber fenestrated Schrötter tube of small caliber. These were persistently used, and on January 10 dilatation was followed by an attack of coughing and a mass of lymph was coughed up. A large chink resulted, and some air could be inspired and he was able to speak in a hoarse but strong voice. During February various larger sized Schrötter tubes were introduced, the patient breathing through the fenestration at the lower end of the tube.

On March 7 a large sized O'Dwyer tube was inserted and after a few hours was coughed up.

March 20 he was again intubated under cocain, after many attempts; the tracheotomy opening was packed with gauze. He was unable to swallow with the intuba-

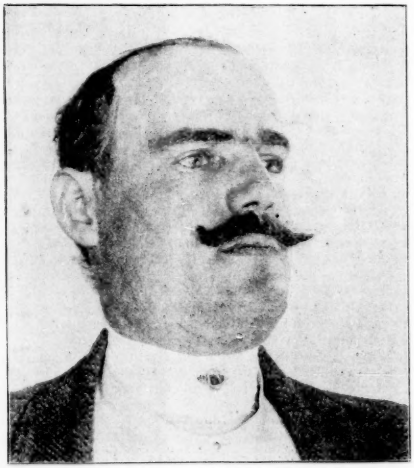


Fig. 1.—Cicatrix shows entrance of bullet.

tion tube and he was fed by means of the stomach tube.

March 24, in a severe coughing spell the tube was coughed up, after four days of intubation and the tracheotomy tube reinserted. The next day he was readily intubated, the tube remaining but one day *in situ*, the tracheal tube being again inserted. The Schrötter tubes readily enter.

April 17, an intubation tube was inserted, having a small rectangular piece screwed through the tracheotomy wound, into a hole previously made in the intubation tube. The screw of this was too short and the tube was coughed out four days later.

April 24, an adult intubation tube had been introduced and a heated iron passed through the tracheal wound to the tube thus marked the point opposite the opening. Following the suggestion of Dr. John Rogers, Jr., of this city, a large threaded opening was made in the intubation tube opposite the tracheal opening and the solid tube was made to screw in—a small plug being inserted to prevent its unscrewing when *in situ*. The final appearance is similar to the arrangement in glass described by Werner Kummel[1] of Breslau. This tube remained *in situ* for six weeks, the patient being fed every three hours by means of the esophageal tube inserted through the nose. During all this time he was unable to swallow. He breathes well, goes about, and enunciates clearly. A small piece of tissue flaps to and fro low down; some narrowing of the lumen of the larynx still exists. A new O'Dwyer tube with the Roger attachment was readily introduced. He left hospital on June 29, wearing this tube; he had meanwhile learned to feed himself by means of the esophageal tube. He was readmitted July 20, 1899.

The tube was removed and a large space was visible in his larynx. His voice was clear, his respirations free and the tube was not reinserted. The external opening was closed and daily applications were made to the thickened tissue in the larynx. His comfort was extreme, his voice clear and distinct; except for some loose flaps quite low down there was no visible abnormality. This comfort lasted for ten days, when the patient complained of some dyspnea and following an application to his larynx the dyspnea became extreme. This attack of dyspnea became so intense that I hastily operated in my office and introduced a tracheotomy tube.

August 1 he was reintubated, followed by a septic condition, and on August 5 tube was removed. From

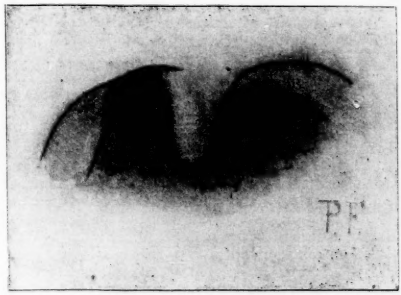


Fig. 2.—Showing hole made by bullet.

now on Schrötter tubes of increasing caliber were introduced daily until March 1, 1900, in the following manner. A 4 per cent. solution of cocain was sprayed into the larynx, the tracheotomy tube withdrawn, a Schrötter tube of very large caliber was introduced beyond the tracheal orifice, and the patient breathed through the tube, keeping it in position for twenty minutes. The tracheotomy tube was reinserted on the withdrawal of the Schrötter tube, the opening was corked up and patient breathed easily for fully two hours. The problem here was to find an intubation tube that would not be coughed up, would permit of deglutition when *in situ* and could be introduced with the least discomfort to the patient. It was noticed with regard to the latter point that Schrötter's tubes, being hollow all the way through, were readily introduced and were not at all annoying, while on the other hand the usual intubation tube with its introducer cut off the air to a most disagreeable extent and was difficult to insert. I therefore had made for me a tube whose head was as low as possible, with no retaining swell, and with a threaded opening for a screw piece, and finally a hollow introducer, which I here exhibit (Fig. 3). Intubation was as sim-

1. Archiv f. Laryngologie, 1896, Vol. iv, p. 72.

V.3
190

ple and easy a problem as one could wish. The new tube was introduced and left *in situ*. In the meantime his general condition was so poor that he began to show some signs of sepsis and the tube was removed. He had been in the hospital, except one month, for a year and a half, and it was deemed advisable to send him to some army hospital where the change of air, combined with a rest from treatment to his larynx, would give him the opportunity to recuperate and enable us to conclude our methods at dilatation eventually. Accordingly he was transferred to Governor's Island in New York Harbor and within a month increased 20 pounds in weight. An examination of his larynx, June 1, shows some diminution of the space about the center of the thyroid cartilages, which appear as if bent in. The vocal cords are plainly visible and perform their function. Some narrowing of the space on a line with the cricoid still exists. His condition is materially improved and I see no reason why, with an intubation tube that permits deglutition, we may not eventually anticipate a perfect cure.

The points of interest in the case are the acceptance of a glancing wound of the frontal bone as a correct

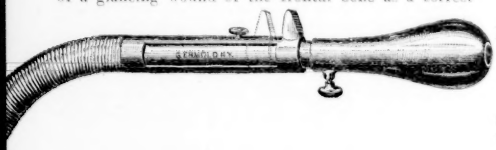


Figure 3.

diagnosis by all surgeons until I saw him, the remarkable course of the bullet, which failed to injure his eye, important nerves or blood-vessels, the early restoration of his voice and the tolerance of his larynx to dilatation, and finally to the use of an entirely new method of intubation, which the writer hopes will render subsequent attempts at intubation, in chronic stenoses at any rate, much more agreeable to both the patient and to the physician.

DISCUSSION.

DR. W. H. DALY, Pittsburg—These cases are very rare. Several years ago, I do not know how many, but some of the old members of the American Laryngological Association may remember, I collated all the cases I could find of gunshot wounds of the larynx, and they were very few in number. I made a very careful search in the Army Medical Museum and other places and could find only very few cases.

Dr. Cohen saw a case with me which was very interesting. A ball, I think a 22 caliber, had pierced the thyroid bone and had severed both true vocal cords. I saw the case about two weeks after the wound was sustained. At that time the young man was lying in a very critical condition. The ball had not been discovered, and with the attending surgeon we made a very careful search for the bullet. The ball had entered somewhere near the angle of the jaw in a downward direction. The boy was not able to speak. After a careful search we found a spot behind the collar bone of the opposite side, over which there was great tenderness. I suggested that we cut down on the parts, making a careful dissection, and while there was some objection, we finally prevailed, and we found the ball resting on the subclavian artery. Part of the coats of the artery was absorbed by the pressure. Certainly, in a very short time, the bullet would have caused ulcerative absorption and hemorrhage. Afterward I asked our eminent colleague, Dr. Cohen, to examine the patient. With the use of the laryngoscope he made a very careful examination, and I think we agreed that the boy would never have an audible voice. We did not see how it was possible with the amount of ulceration and traumatic damage done to the larynx. However, I brought the patient to Pittsburg, and after prolonged care he recovered, without much traumatic stricture of the larynx, and in about a year or a year and a half, he had an audible voice and afterward he became able to shout. He entered on the study of medicine, and is now a graduate, and can use his voice very well. The case shows the tremendous amount of damage that may be done to the larynx and pretty good results follow.

DR. J. HOLINGER, Chicago—About five years ago a new tracheotomy tube was devised by Dr. Thilo, of Chicago. The instrument consists of two pieces on the principle of a duck bill. It would fully comply with all the requirements necessary for an intubation tube in this case. The instrument is very easy to be inserted, and deglutition is possible with the tube in situ. It is self-retaining. So far, this instrument has been buried in the reports of the Chicago Medical Society, and no instrument maker is willing to take it up because there are so many varieties of the O'Dwyer tubes. But I know it is a good thing.

DR. EMIL MAYER, closing the discussion—I am desirous of knowing something about that tube, as it would be of advantage to procure one that will remain in the larynx.

PAPILLOMATA OF LARYNX IN CHILDREN.*

EDWARD T. DICKERMAN, M.D.

CHICAGO.

Papillomata of the larynx is undoubtedly the most frequent neoplasm found in the larynx of children, where fortunately pathologic growths are not of frequent occurrence.

In an article by Rosenberg,[1] of Berlin, he states that out of 5808 children under 13 years of age, 16 cases of papillomata were found, that is, 1 in 363 cases examined.

Schrötter found the ratio about 1 in 700, Baumgarten states the condition was rare in his clinic.

In my own clinic I find the disease occurring once in about every 1200 cases. It has been my fortune to see 5 of these cases, 3 in private and 2 in clinical practice, the histories of which I shall briefly relate:

CASE 1.—In March, 1896, a little girl, aged 6 years, was brought from Montana to consult Dr. M. R. Brown, of this city. At the time, Dr. Brown was unable to take care of the child and he referred her to me. She gave the history of diphtheria two years before, since which time she has been gradually growing hoarse, and during the last six months breathing has become difficult. The general condition of the child was below par and it was with the greatest difficulty that a glimpse of the larynx was obtained, revealing nearly the entire cavity filled with a cauliflower growth of a pale greyish-white color. After consulting with Dr. Brown, I decided to first do a tracheotomy for the relief of the dyspnea. Five days later thyrotomy was done and the growth was found attached to the false and true cords and extending up on the inner side of the aryepiglottic fold. It was removed with scissors and curette; the base was cauterized with chromic acid. At the end of four weeks the mother insisted on taking the child home, and as no recurrence had taken place the tube was removed. The growth recurred five months later and tracheotomy was again done by the local physician.

CASE 2.—In January, 1897, a boy, 9 years old, was sent to me from an interior town, with the following history: One year before, the boy had a sore throat and

*Presented to the Section on Laryngology and Otology, at the Fifty-first Annual Meeting of the American Medical Association, held at Atlantic City, N. J., June 5-8, 1900.

1 Archiv f. Laryngologie.

was hoarse. He belonged to a church choir and during this time had tried to sing, but his voice failed him. Since then he has been gradually growing worse. On examination a lobulated growth was found springing from the under side and free edge of the left cords and at the angle extending across to the right cord. The boy had a good control of his larynx and by means of a snare the growth was removed, only to recur. During seven months, I operated five times, and then followed up my last operation with a 5 per cent. solution of salicylic acid in alcohol, to which was added 3 per cent. of resorcin applied daily. For two years the larynx has been free and the voice good.

CASE 3.—A girl, 5 years old, was brought to my clinic at the Chicago Policlinic, in June, 1898, with the history of scarlet fever eighteen months before, since that time cough, hoarse crying, and later dyspnea. With great difficulty a glance into the larynx was obtained, revealing a warty growth filling in the anterior two-thirds of the glottis. Tracheotomy was done at once on account of the dyspnea. At repeated sittings, by means of a snare and sponge as devised by Voltilini, pieces of the growth were removed. I lost track of the child for six months and when she returned I found much to my surprise that the growth had disappeared. She wore the tube for six months and at the end of that time, no recurrence taking place, it was removed. I saw the little patient the other day. The larynx is free and the voice normal.

CASE 4.—A boy, 2 years of age, was brought to my clinic last December with history of cough, laryngeal spasm, rough hoarse cry and for two weeks dyspnea. Only by means of the autoscope was I able to see the posterior part of the larynx, the surface of which was covered with a papillomatous growth. Tracheotomy was done at once, and from my last examination, made two weeks ago, I think the growth is growing smaller. No endolaryngeal treatment was employed.

CASE 5.—A girl, 4 years old, was brought to my office last March with history of hoarseness, cough, choking at night, and increasing dyspnea. The examination was difficult, but I succeeded in seeing the larynx apparently filled with a cauliflower-like growth. I sent her to the hospital, expecting to do tracheotomy at once. On arriving at the hospital the child began to cry, became cyanotic, stopped breathing, and before the tracheotomy, done by an interne, was completed the child was dead. [The larynx removed from the tracheal wound was passed around.] The growth springs from the true and false cords, and nearly fills the glottis opening. A deep inspiratory effort wedged the growth in the chink of the glottis, asphyxiating the child.

In 1897, Rosenberg collected and published 231 cases. Since that time I have been able to collect 16 cases, thus with my own making a total of 252. Of these, 114 were boys, 100 girls, and in 38 the sex is not mentioned. Fourteen of the cases were under two years of age; 57 between two and four years; 38 between four and six; 19 between six and eight; 39 between eight and thirteen. In 15 cases the age was not stated.

Papilloma of the larynx may be congenital, although I consider this a rare form. It may develop early in life, following an attack of one of the acute exanthemata. In one of my cases it appears to have been caused by an acute laryngitis. Lennox Browne thinks that adenoids and enlarged tonsils may act as etiologic factors, although in none of my cases were they present.

When occurring in the first few years of child life, the growth is generally multiple, pale grey-white in appearance, and springs especially from the true and false cords, although the whole laryngeal surface may be involved. Later, it may be single or lobulated, and generally makes its appearance in the anterior half of the larynx, developing on the true cords.

The clinical picture in a well-developed case is characteristic: a rough hoarse voice, or loss of voice, cough harsh and annoying, a distressing inspiratory dyspnea with retracted chest walls and shallow breathing. Laryngeal spasm is not an infrequent symptom, and a rather free mucous expectoration is generally present. The diagnosis can be made almost from the clinical history and the general appearance of the child; a positive diagnosis by means of the laryngeal mirror will often try the patience of the most expert laryngologist.

Autoscopy I found of great value in one of my cases. Frequent examination of the sputa will disclose particles of the growth which have become detached and are expectorated.

Treatment of this class of cases may be divided into two forms: 1. Where the dyspnea is not marked, rest in bed, absolute rest of the larynx and a general tonic may be tried. Various local applications may be used. In my hands a 5 per cent. solution of salicylic acid in alcohol, with the addition of 3 per cent. of resorcin, has proved of benefit. 2. Operative treatment may be of three kinds: laryngotomy, tracheotomy with or without intralaryngeal procedures, and intralaryngeal operations.

In order to compare the value of these various methods I have, as Rosenberg did in his article on this subject, divided the operative cases in three groups according as they were treated by laryngotomy, tracheotomy or intralaryngeal means. Some of the cases are difficult to classify, as two or more of the above methods were tried. Rosenberg reports 88 cases treated by laryngotomy with the following results: 17 cases died from various causes; diphtheria, bronchitis, pneumonia, or suffocation from recurrence; in 5 cases the result is not reported; 34 cases recurred, in 6 with voice affected, in 1 with breathing disturbed, 1 with necrosis of the thyroid cartilage, 2 with fistula, and in 3 the cure was only temporary.

Bruns, in a paper published in 1878, comes to about the same conclusion. In 21 cases collected by me since Rosenberg's paper was published, 5 were treated by laryngotomy, 1 died, 2 cases were cured, 1 recurred, and 1 is in doubt. Roughly speaking, of all these cases 40 per cent. were cured, 20 per cent. died, and recurrence occurred in about 40 per cent. Of the total 252 cases collected, 43 cases were treated by tracheotomy with the following results: 21 cases, or 49 per cent., were cured, 3 cases, or 7 per cent., recurred, 12 cases, or 28 per cent., died, and 6 cases, or 14 per cent., were in doubt.

In the third class I have placed only those cases actually treated by intralaryngeal methods. Of the 21 cases collected by me, 6 cases were handled by this method, 4 were cured, 1 recurred, and 1 case is doubtful. Rosenberg's table shows the following results: Out of 48 cases, 3 died; in 7 the result was doubtful, 6 improved, in 4 temporary cure and in 27 cure absolute.

Of the methods employed in the removal of these growths, I shall have little to say. Personally I used Krouse's small pincet-forceps and the snare, and I think I have had good results from following up the intralaryngeal operations with the daily application of

V. 3
190

a 5 per cent. solution of salicylic acid in alcohol. I should like to offer the following deductions:

1. That papilloma of the larynx is, especially in this country, a rare disease.

2. In a number of cases they undergo spontaneous cure.

3. Intralaryngeal methods should always be tried first, unless dyspnea is pronounced, when tracheotomy should be done at once.

4. After tracheotomy, intralaryngeal methods should be tried.

5. Patient should wear a tube for six months after the growth has disappeared.

6. Thyrotomy should be considered only as a last resort.

103 State Street.

UNUSUAL PAPILLOMATOUS GROWTH IN THE LARYNX.*

JOSEPH S. GIBB, M.D.

Professor of Diseases of the Throat and Nose, Philadelphia Policlinic, etc.

PHILADELPHIA.

The case which it is my privilege to present to the Section at this meeting was one of such unusual character as, in my judgment, to merit publication. While many of the features of the case are common to laryngeal growths, there is one characteristic, viz., its color, which makes it almost unique.

The opportunity afforded to study this case from an early period of its existence to the close was most fortunate, and I trust not unproductive of results, if not of immediate value to the patient, at least an addition to our store of knowledge in the field of laryngeal growths. The history as taken from the records is as follows:

John D., aged 52 years, a laboring man, always enjoyed good health until present illness; family history is good. No tuberculosis or cancer existed in family so far as he knows. He had a chancre when a young man, but has no recollection of secondary manifestations.

The first symptoms of the present illness began in the winter of 1896, and consisted of a slight hoarseness and tire after talking. Soon a slight cough appeared and he began to experience some impediment to free respiration, at first only manifest on exertion, e.g., ascending a flight of stairs. These were the symptoms of which he complained when he first presented himself. Examination revealed the following conditions: Pharynx injected and exceedingly sensitive, requiring the use of a local anesthetic to tolerate the presence of a mirror. The mucous membrane of the larynx is red and the cords injected; approximation of the cords perfect. A pearly-white deposit extends from the base of the left arytenoid body on the lateral wall of the larynx down to, but not involving, the true cord of this side. This whitish deposit seemed to consist of an innumerable number of fine filaments closely packed together, in mass presenting an appearance not unlike that of mycosis in the pharynx. During the examination a peculiarly unpleasant odor is noticed. This deposit or exudate is firmly fixed to the membrane from which it springs, and resists all attempts to brush it away. There is a slight edema of the tissues immediately surrounding the deposit, but there is very little encroachment upon the lumen of the laryngeal cavity.

Acting on the suspicion that the peculiar condition was syphilitic in its nature, increasing doses of a sat. sol. of iodid of potash were given until gtt. xl. t.i.d. were tolerated, and this was continued for a month or more. The only effect of this treatment was to improve both the quality of the voice and the dyspneic symptoms. The only change noticeable in the larynx was a diminution in the edema. So far as the exudate was concerned, three months from the time the iodids were commenced, in which time they had been taken almost continuously, there was absolutely no change, either in character or extent.

During the summer of 1897 I saw very little of the patient, and at these occasional visits no change could be detected in the laryngologic appearance. Early in the fall of this year the iodids were discontinued and simple tonics were prescribed. During the winter of 1897 and 1898 the patient was seen regularly, at least once, and sometimes twice, weekly. Very slight changes were noticeable in the larynx and the general symptoms varied. At times he seemed weak and nervous; at others he would grow stronger, even taking up work at the navy yard during the recent war with Spain. The only symptom of note to record during the period from October till May was a slowly increasing dyspnea, especially manifest on exertion or after an examination by the laryngeal mirror, a slight cough, very harsh and smothering in character and increasing hoarseness.

During the summer, from June till September, I saw very little of the patient. The early part of this period he was, as above stated, engaged at the navy yard and had no time for treatment; the latter portion I was out of the city. I again saw him the early part of September, 1898, and noted a very marked change in him, both as to his general condition and the appearances of his larynx. The breathing had become noticeably oppressed and noisy; there were frequent, short, sharp, smothered coughs and he seemed much distressed. He stated that he had not been able to sleep for weeks, because of the great difficulty in breathing; appetite had failed and he had become somewhat emaciated. In the larynx it was seen the growth had increased, both in extent and bulk; the entire left side of the larynx was covered and a portion of the right. The lumen of the larynx was encroached upon to such an extent that only a very small section of the anterior edge of the right cord could be seen. The general appearance of the deposit remained the same, viz., the glistening, pearly-white color; the odor had increased and was distinctly fetid. His condition at this time was so serious he was urged upon to come into the hospital so that he might be watched and prompt relief given. However, he remained away for three weeks, and when he again presented himself his symptoms were so urgent as to require no persuasion to obtain his consent to enter the hospital. Indeed, so eager was he to obtain relief from his great distress that he was perfectly willing to submit to anything.

He was admitted to the Episcopal Hospital the evening of October 7. So alarming were his symptoms that I felt at first his trachea should be opened at once; but, recognizing the disadvantage of doing the low operation by artificial light and also during the distressing paroxysms of dyspnea, I decided to wait a short time. The urgency of the symptoms passed over in a little while and the operation was fixed for the next afternoon.

The low tracheotomy was done the afternoon of Octo-

*Presented to the Section on Laryngology and Otology, at the Fifty-first Annual Meeting of the American Medical Association, held at Atlantic City, N. J., June 5-8, 1900.

ber 8. No general anesthetics were permissible, hence a 4 per cent. solution of eucain was injected into the skin along the line of the proposed incision; this controlled the pain perfectly. The trachea was unusually short and deeply situated, so that some little time was consumed in reaching it. In cleansing the trachea of loose connective tissue previous to incising, some of the deep veins were torn and considerable bleeding resulted. Unfortunately, at this time the patient was seized with an unusually severe paroxysm of dyspnea, and for a few moments it looked rather hopeless. Happily, time was allowed to catch up and tie the bleeding vessels and rapidly open the trachea. This at once relieved all the urgency of the symptoms.

The ordinary tracheal tubes were all too long in the curved portion, so that great difficulty was experienced in having them retained. After using two, a third was found which seemed to hold in position. In consequence of the difficulty with the tubes, it was deemed expedient to take a stitch on either side of the incision in the trachea with a short silk ligature, so that the trachea could be separated and breathing sustained in the event of the tube slipping out. The following afternoon, on my visit to the hospital, the tube was in the wound and the patient was breathing through the slit in the trachea. After some difficulty the tube was replaced and gave no further trouble. On the third day the patient developed a purulent discharge from tube, with high temperature, and died suddenly at noon on the fourth day.

Post-mortem.—The tongue, larynx and trachea down to the bifurcation with adjacent tissues were removed for examination. The length of the larynx and trachea from the top of the thyroid cartilage to the bifurcations is a trifle over 5 inches. From the top of the thyroid to the tracheal wound is 3 inches. At the position of the incision in the trachea, which when the parts were *in situ* was a little above the suprasternal notch, the trachea bends to a right-angle; this angular portion is about 1½ inches in length before its ultimate division. The wound in the trachea is ragged and irregular.

The larynx and trachea were split open in the median line, commencing above the suprathyroid notch and extending downward to and joining the incision in the trachea. The cartilages were completely ossified, requiring the use of the saw for their division.

Looking into the larynx from above, both arytenoid cartilages are thickened and indurated, the right to a greater degree than the left. The new growth almost entirely covers and extends above the left arytenoid; on the right the growth extends to nearly the top of the arytenoid, leaving about ¼ inch of the cartilage free though much indurated. The lumen of the larynx is encroached upon to such an extent as to barely admit of a crow's quill. The epiglottis and all the extralaryngeal tissues are entirely free from the new growth. After separating the divided thyroid cartilages and trachea, the entire larynx seems to be filled with the new growth, which almost entirely obliterates all landmarks. It extends from the apex of the arytenoid cartilage above and down to the lower border of the cricoid cartilage below. It is much more extensive on the left side and posterior wall of the larynx, absolutely obliterating all the normal tissues of the larynx. The right side is greatly infiltrated, the only recognizable tissues being the anterior third of the true and false cords and the lateral wall of the larynx lying between them. The growth is whitish in color, exceedingly soft and friable, breaking down upon the slightest touch of the probe. The trachea below the cricoid seems normal in appearance and presents nothing of interest.

The notes of the autopsy as to the other organs have been omitted, because they threw no light on the cause of death and were in most respects normal. In the light of a subsequent experience and from the symptoms presented just prior to death, I believe that cultures taken from the blood and internal organs would have shown the presence of streptococci in pure culture, and that the case was another instance of sepsis following operation in which intralaryngeal surgical work had been previously done. I am indebted to Dr. H. L. Williams for the following careful report of the microscopic appearance of the growth:

A small piece of tissue about the size of a pea has been removed from a typical part of the surface of the growth, hardened in formalin, mounted and cut in celloidin and stained with hematoxylin eosin. On microscopic examination we note that the surface is exceedingly irregular and can be followed with difficulty, on account of the foldings and reduplications. Superficially we note a granular débris of necrotic tissue, mostly amorphous, with occasional leucocytes, small round cells and a few squamous epithelial cells caught in various portions. Beneath this we find an irregular horny zone of variable width, taking the diffuse eosin stain faintly, containing no nuclei and showing slight striation in lines parallel with the surface. As we pass beyond the horny zone the striations become more marked; flattened and spindle nuclei begin to appear between the striæ, and the outline of cells that have been flattened by pressure can be discerned. Proceeding still a little more deeply we come upon large, well-developed, typical stratified squamous epithelium with round, or oval, slightly granular nuclei, which take the hematoxylin stain very deeply. The cells at the bottom of this stratified epithelium are more compact and form a band from three to six cells deep. The outline of these cells is more regular and oval, while the nuclei are a trifle larger. The cells in the innermost layer are regular, closely packed, with dark granular nuclei, and come in immediate contact with the loose connective tissue beneath, which is seen extending in among the epithelial masses in long, slender finger-like processes. These finger-like processes appear to be the extension of slender papillæ from the underlying tissue, and are made up of a loose connective-tissue reticulum, and contain numerous small, thin-walled capillaries. They appear entirely normal. There is no apparent extension of epithelium into the connective tissue, and where the epithelium and connective tissue come in contact the epithelial cells are arranged with great regularity. In the outer horny zone there are many twists and quirls, somewhat necrotic, which appear like epithelial pearls.

Summary: There has been a tremendous proliferation of stratified squamous epithelium, with a transformation of the superficial layer into keratin, and a tendency to the formation of epithelial pearls, while many slender connective-tissue papillæ project up among the epithelial layers from the underlying tissue. In giving a diagnosis we incline to consider it a benign papilloma, though the tremendous proliferation of squamous epithelium and the tendency to the formation of twists, which resemble epithelial pearls, is suspicious. Should malignancy be present, however, we should not hesitate to say that we believe it to be exceedingly slight and with no tendency to metastasis.

There are two features of this interesting case to which I wish to direct attention. The first is that of diagnosis. The symptoms presented at once direct attention to the larynx and indicate an obstructive lesion. Inspection of the larynx confirmed this suspicion and revealed a neoplasm. The peculiarities of this neoplasm is what attracts our attention, viz., a whitish, glistening excrescence limited to one side of the larynx, not materially interfering with the respiration—we are now considering the case in the early stages—not yet producing

V.3
190

serious alteration in the voice, and unaccompanied by pain or cough.

By the process of exclusion we are enabled to determine what it is not, but the same process was not successful in revealing its true nature. Syphilis was first thought of, only to be rejected after a full trial of the therapeutic test. The location and many features of the case suggested the most common laryngeal growth, viz., papilloma, but it by no means answered to the usual appearance of growths of this nature. On several occasions pieces the size of a pea were removed and submitted to the pathologist for examination. Reports were received from two pathologists; while there is a difference in the phraseology of the two reports, they are as one in regarding it as of an essentially papillomatous character, though differing materially from the ordinary forms of growth in the larynx; this difference is manifest in the large number of horny epithelial cells in the outer layers. Mackenzie, in his early works on laryngeal growths, intimates that papillomatous growths may be of a whitish color, but lays no particular stress on growths of this character; I believe such an acute observer surely would have done so had he met with one. Lennox Browne also speaks of papillomatous growths as of whitish appearance, but with no separate mention. Bosworth says papillomata may be grayish-white in appearance.

It has been my privilege from time to time to present this patient to the section on Otology and Laryngology of the College of Physicians. There was much difference in the views of the Fellows as to the probable nature of the case, but there was unanimity as to its uniqueness. In a rather hasty review of the literature of laryngeal growths little has been gleaned to throw light on the present case. Gleitsmann's case, presented at the meeting of the American Laryngological Association in May, 1896, is similar to it in many particulars; unfortunately, he was not able to follow the case to its termination. The pathological examination of the growth in this case is strikingly similar to the case here presented; the diagnosis of the pathologist was papilloma durum, probably malignant and perhaps carcinomatous. The history of our case points strongly to malignancy, and yet the microscope at no time, either ante-mortem or post-mortem, shows positive evidence of its existence. Clinically it would seem that originally the growth was of a papillomatous character and had suddenly taken on malignancy, possibly because of intralaryngeal manipulations.

Note the apparent quiescence for a period of nearly two years, and then a sudden and remarkable activity and extension within a few months. Is not this the history of a benign growth taking on malignancy?

The second feature of the case to which I wish to direct attention may interest the anatomist rather than the laryngologist. The anomalous position of the trachea constitutes an unlooked for difficulty and seriously complicates tracheotomy. The trachea is found to bend abruptly backward at about the fourth ring; this leaves a space in which to open the trachea, between the lower border of the thyroid cartilage and the fourth tracheal ring, a distance in the present case of a trifle over 1 inch. The greater portion of this space is occupied by the isthmus of the thyroid gland, which, under the disturbing circulatory changes of the laryngeal stenosis, is inordinately vascular and, hence, enlarged. Now, if one considers the undesirability of the high operation, in cases of laryngeal obstruction, which practically rules this operation out, we are struck with the difficulty such an anomalous condition offers to the operator.

The peculiar anatomical position of the trachea clears up the difficulty encountered with the tube. At the fourth tracheal ring the trachea bends almost abruptly backward. The incision into the trachea is between the third and fourth rings, so that less than 1 inch of trachea is left between the incision and the abrupt bend. As the length of the segment in most tracheal tubes is a trifle over 1 inch, it is readily seen that the lower end of the tube impinged against the horizontal portion of the trachea and was thus forced out of the wound.

It is not the object of this paper to discuss the treatment, but the history of the case would scarcely be complete without some reference to the plan followed and to others that were contemplated. As an aid to diagnosis, pieces of the growth were removed; after having the pathologist report, an effort was made to clear the larynx. Much difficulty was experienced from the toughness of the base of the growth, which permitted us to remove only very small pieces at a sitting, and those were quickly reproduced, though always at the original site.

Intralaryngeal operations were abandoned after a thorough trial. The intention then was to do a preliminary tracheotomy and later split the thyroid cartilage and thoroughly clear the larynx. Months before the trachea was opened the advisability of thoroughly clearing the larynx by the extralaryngeal method was determined on. The patient, however, was very irregular in his attendance at this time and could not be made to appreciate the gravity of his situation.

At no time was the subject of laryngectomy considered, for the reason that clinically or microscopically there was no reason to suspect malignancy.

DISCUSSION ON PAPERS OF DRS. DICKERMAN AND GIBB.

Dr. J. Wright, New York City—I have been much interested in the last case because it helps to clear up in my mind one or two other cases that I have seen. The case of Dr. Gleitsmann, which was referred to by the last speaker, I had the pleasure of examining, and it presented a most singular appearance. It was pearly white with a papilliform appearance. The diagnosis was uncertain and is uncertain to this day. With the report made by Dr. Gibb in connection with the case I saw this winter, it seems to me that the three cases when put together clear up the nature of the trouble pretty well. The case I saw this winter, in connection with Dr. Dudley, was a case in which the growth appeared on the soft palate, and was the size of a quarter of a dollar, just back of a false plate the gentleman wore in his mouth. The patient was 72 years of age. The smoke passed directly from the end of the cigar, across the false plate and struck the soft palate without any interposition of the tissue in front. There this growth appeared. It was somewhat like a smoker's patch, and yet the extreme thickness of it seemed to rule that out. It was probably an eighth of an inch thick, with the edges sharp cut. At one side, dipping down into the tonsillar tissue were one or two islands. A piece was taken off and submitted to a pathologist for examination and an unhesitating diagnosis of carcinoma was made, which, from the age of the patient, and I confess somewhat from the appearance of the growth, made me agree with the diagnosis. The history extended over several years and there was no infiltration of the glands around it. The man was in too feeble a condition to justify the removal of the growth. On a later examination of the case I could not make out any malignant tissue. The cells which were rapidly proliferating were dropping into the lymph spaces, and these cells were not showing any evidence of malignancy. After consultation the growth was snared off with a cold wire snare, and in spite of our apprehensions the whole thing healed over and the patient inside of five days was relieved of all his symptoms and

has remained well until this day. The condition is not a true papilloma, but a local hyperplasia of the tissue.

DR. E. FLETCHER INGALS, Chicago—Some ten or twelve years ago I saw a patient once or twice in consultation on account of a growth very much like that described in the paper. It was pearly white, firm to the sense of touch and had an appearance as if it were made up of columnar tissue, the ends of the columns having been cut off at the surface of the growth. This growth extended across one side of the larynx, above the cord, occupying the whole of the opening of the ventricle, and the lower part of the ventricular band. A portion of it was cut off and submitted to a skilled microscopist, who reported to me that it was a small-celled sarcoma. Within a few weeks tracheotomy became necessary, but the patient lived.

I was much interested in the excellent paper referring to laryngeal papillomata in young children. I recall a couple of cases of especial interest because of the treatment. One of these, a child ten or twelve years old, I saw before I was very adept in the use of instruments, and I had great difficulty getting hold of the growth, but finally I succeeded in pinching it hard. This growth was immediately below the cords and as large as a good-sized pea. I did not succeed in removing it that time, and the child did not return for a week or two, and then I found the growth had entirely disappeared. When I saw the patient some years afterward there had been no recurrence. In a little boy four or five years of age whom I treated about three years ago, I succeeded in examining the larynx very readily, but could not use the forceps. However, after rubbing the growth vigorously two or three times with a sponge, it entirely disappeared and there is no recurrence. I have tried the autoscope in children with laryngeal tumors two or three times and have been able to see the growth fairly well, but I have not had good results with it in operative measures. I had hoped we would get considerable assistance from it, especially with the children under an anesthetic, but I have not succeeded. I should like to know the experience of others with this instrument.

DR. NORVAL H. PIERCE, Chicago—In reference to Dr. Gibb's paper I wish to say that in my experience the laryngoscopic picture is not infrequently of only negative value in the diagnosis of laryngeal carcinoma. The appearance of the neoplasm, as well as its location and consistency, is often inconclusive. This is especially true of the first stage of its development. Later, we are oftener more or less able to positively identify the nature of the neoplasm by means of the laryngoscope alone. But the microscope will ever be the court of last resort, in this matter, as it is in so many others, for it is only by means of a structural examination of the tissue composing the growth that we may arrive at final conclusions, and even after such microscopic examination only positive results may be regarded as conclusive. It is generally admitted that the whitish-gray color, or refractive whitish surface, of a growth in the larynx is not by any means characteristic of malignancy; but it may be said on the other hand that many ulcerated carcinomata do possess this pearly-white color, which in a way is peculiar. In my opinion this coloring is due to a secretion which is derived from the juices of the malignant neoplasm. I have found that this coating is readily decomposed by peroxid of hydrogen. The surface of the tumor is then quite changed, being, instead of smooth, more or less granular, and, instead of pearly white, is pink or red or mottled. It has occurred to me that by means of this simple procedure we might differentiate in some cases between a malignant growth and benign hard papilloma, such, for instance, as Jurasz has reported, in which a vocal band was the seat of a diffuse chalk-colored, conical mass which was pronounced by several of his colleagues to be carcinomatous, but on careful microscopic examination after the death of the patient proved to be an absolutely benign hard papilloma. I repeat that if the peculiar juices of the carcinoma produce a somewhat characteristic coating on the surface of the growth as it occurs in the larynx, then the decomposing action of peroxid of hydrogen may be of diagnostic worth in aiding in the differentiation of laryngeal cancer from tumors which do not possess such juices.

DR. W. B. JOHNSON, Paterson, N. J.—I think these cases of papilloma are of an interesting character, because so little seems to be accomplished by any form of treatment that is employed. Most of the cases that have been reported seem to have resulted in spontaneous cure without any definite knowledge of just what the cause was. I wish to say that I have used in such cases the application of formaldehyde, working on the theory that if absolute alcohol was good and was supposed to abstract water from the tissues, formaldehyde would be a better remedy. I am sorry to say that I can not report that the application of formaldehyde was successful. I have used intubation a number of times in preference to the tracheal canula. I have understood from others who under similar circumstances have used intubation, that it is a common occurrence for the papillomatous growth to grow over the top of the tube. Such has not been my experience. I am now treating a case with absolute alcohol spray used frequently, and am waiting patiently to see the result. One thing has suggested itself in the nature of an inquiry, and that is whether or not it is desirable to perform tracheotomy in cases of this character before dyspnea becomes very troublesome, for the purpose of allowing the parts complete rest.

DR. OTTO JOACHIM, New Orleans—I wish to bring to your notice a case in which the clinical history is very much the same as given by the Doctor. The symptom of recurrence was especially pronounced. The patient was a girl about six years old. The removal of the growth was not difficult, but recurrence was persistent, and it seemed the more I interfered with the tumor the more rapidly it grew. I finally made a laryngotomy, curetted the growth, and thoroughly cauterized it in the hope that this would terminate the condition. But this hope was fallacious. The treatment had extended over the greater part of the winter and spring, and when vacation time came on I left the patient in the hands of my assistant with instructions to use absolute alcohol locally. During my vacation this was used solely and continuously. I would not say that the use of absolute alcohol cured the patient, but at all events in the fall the growth had disappeared. I have seen the child frequently since, for a period of two years, and there has been no recurrence. There was some trouble in extubation and curing the fistula, which, however, was readily overcome.

Of the class of papilloma reported by Dr. Gibb, I have in mind three cases. The first one was not a case of my own. I had, however, an opportunity to make some microscopic sections of the growth and the report thereof was published in the *Archives of Otology* in 1887 or 1888. The second case was my own in which a diagnosis of horny papilloma was made, and it resembled the Doctor's case very closely. For two years the condition seemed to be in a quiescent state, but after that it became fulminant and rapidly fatal. In the third case the lesion was at the base of the tongue, very large and characteristic, about the size and shape of half an egg. The pathological condition agreed with the appearance of the case demonstrated by Dr. Gibb.

DR. H. STILLSON, Seattle—There seem to be papillomas and papillomata, and I have no doubt each member present says to himself, when the gentleman before him has finished speaking, "there are others." It seems to me our diagnosis of papilloma should go further into differentiation. I recall a case, which I suppose belongs to the classification given by Dr. Gibb and which has been mentioned as a hyperplasia by Dr. Wright, in an infant 12 months old. The growth was located on the frenum of the tongue, and was about three-quarters of an inch in diameter and somewhat pedunculated. I did not know what it was, nor do I know now. Its color was white, thoroughly ivory-white, and it was firm. Not knowing what to do with it and not knowing whether it would recur on removal, I gave a placebo, I think it was borax or perhaps boracic acid as a mouth wash, and let it go home, with instructions to return in a few days, intending in the meantime to read up on the subject. In a few months I saw the case and found the growth had almost entirely disappeared, and when I saw it casually a few months later it had entirely disappeared.

Dr. N. L. Wilson, Elizabeth, N. J.—In regard to the application of alcohol, I had a child 6 years of age whom I kept under my observation three years. After trying almost everything, after scraping the growth out twice, tracheotomizing, intubating, and having the intubation tube fall down into the trachea, I finally made up my mind to leave the child alone and find out what nature would do, and the result is that the child is well. I had made applications of alcohol by spraying it into the larynx. The growth sprang from beneath the right true cord. That made me think our friend had possibly overdrawn it when he said that alcohol would cure these cases. I have had cases, however, where the growth sprang from the larynx above the cord, and by making these topical applications, preferably with the canula, I have seen the growth shrink. One case now under treatment is much better than three months ago, although as yet the patient is not cured of her papilloma.

Dr. Taut—It appears to me the latest treatment of papilloma has been entirely overlooked. Two years ago I intubated for this difficulty and finally did a tracheotomy, and then the child drifted out of my hands and is now under the care of the "Christian Scientists," and if the gentlemen will visit the Pan-American Congress I shall be very glad to report the results.

Dr. Mackenzie—I have nothing to add to what is already known on the subject. I will simply say in connection with the dissolution of these growths by topical applications, that I believe one of the best of all topical applications, alcohol included, is sulphate of zinc. I have used for a great number of years a combination of sulphate of zinc and other things, but the chief ingredient is the sulphate in the proportion of two or three grains to the ounce. Years ago, when I was in Bellevue Hospital, I used a preparation consisting of 16 or 17 grains of sulphate of zinc, about 2 ounces of compound spirits of lavender and about 6 ounces of water, which acted very satisfactorily in shriveling up venereal warts on the genital organ. Since then I have used a modification of the solution on the throat in shriveling up small remnants left after operation on the larynx and also after operations for adenoid growths. I think in most of these cases it will be necessary to do a preliminary tracheotomy or laryngotomy. Much time is lost in the futile attempt to remove such growths through the natural passage. Especially in small children no time should be lost in performing preliminary tracheotomy, splitting the thyroid and removing the disease in its entirety. We can accomplish much more in that way than in picking away at the larynx over a considerable length of time. My experience agrees with that of others, that the growths often disappear spontaneously after preliminary tracheotomy. But that requires time, and if time is an element I think the best plan is to split the larynx and remove the growth at once in its entirety.

Dr. Emil Mayer—The case presented by Dr. Gleitsmann has been mentioned and I can add a little to the subsequent history. Dr. Gleitsmann said the last he understood was that the man was dead. A year after he made that statement the patient walked into my clinic and I inquired why he had given the impression that he was dead. He said the Professor was so interested as to come all the way out to one of the adjoining townships from New York City that he thought something dreadful was going to happen and he hid himself and his people reported that he was dead. I tried all manner of persuasion to get a portion of the growth for examination, but the patient disappeared and I do not know where he is. So, gentlemen, the statement that he was presumed to be dead may be refuted; at least he was living one year after the paper was read.

Dr. Gibb, closing the discussion—I am very glad to hear the report of so eminent a pathologist as Dr. Wright; it certainly adds weight to the opinion we had already given. I was likewise very much interested in Dr. Mayer's description of the termination of Dr. Gleitsmann's case. Anybody who reads how Dr. Gleitsmann chased this patient all over Brooklyn can appreciate the Doctor's remarks. I had hoped the discussion would take up, besides the pathological side of the question, the anatomical feature. At the meeting in Washington one of the members said tracheotomy sometimes is a formidable operation, and in this it was a very formidable operation because of the position of the trachea. The position of the trachea was an unforeseen difficulty, which one would not think of had he not seen a similar case.

THE RECIPROCAL RELATIONS BETWEEN CONSUMPTIVES AND SOCIETY.

S. G. BONNEY, A.M., M.D.

Professor of Medicine, University of Denver; Visiting Physician, St. Luke's Hospital.

DENVER, COLO.

No medical or economic problem at the present time can assume such a degree of importance on account of its almost universal application, and the degree of individual and state responsibility involved, as the prevention of pulmonary tuberculosis. This disease is known to affect approximately one-third of our population, and to constitute one-seventh of our annual deaths. Several millions of people in this country are now afflicted with a tubercular process, known to be communicable rather than hereditary. Practically, its transmission occurs, not so much from infected food-supply as from the existence of an almost ubiquitous agent disseminated by means of the sputa of infected individuals.

That the disease is thus communicable should not be understood to be so much the result of direct infection from one person to another, after the manner of certain contagious diseases, but more because of the neglect to observe necessary precautions. There is thus permitted a wider distribution of the bacilli, whose continued presence in the home and in public places constitutes a source of danger to those rendered susceptible by occupation, manner of life, previous disease, inheritance and environment. Only to those especially predisposed is the disease communicable, and even to these, scarcely ever from a single exposure. Not only is the infection incremental in character, but rarely is the first infecting process known to exist after it is once acquired. More frequently is it the repeated infection which the individual resistance is finally unable to overcome without the recognized manifestations of the disease.

Despite these established truths, together with an actual diminution of the mortality-rate in recent years, wherever reliable statistics have been obtained, the fact remains that the welfare of the commonwealth is seriously threatened. The dark shadow of consumption still hovers over countless homes. There exists a foe in our very midst more dangerous than an invading host, and for whose complete subjection and the consequent safety of the people, there is required only a small fractional part of the energy and means that are expended in prosecuting a war of conquest, or in an imaginary effort to uphold national honor. To one whose sympathetic attention with reference to tuberculosis is constantly forced to the contemplation of the direful results of apathetic indifference and ignorance from some sources, and an immoderate professional attitude, with popular intolerance from others, there certainly remains much to be desired toward the practical solution of the tuberculosis problem.

Consumption is now recognized to be a distinctly preventable and largely curable disease, and hence should be prevented and cured when possible. Does there not exist, therefore, an imperative obligation upon the state to secure adequate protection for the com-

munity, and suitable provision for the care of those afflicted? This responsibility rests indirectly with the medical profession in its advisory capacity on matters pertaining to public health. The physician should be confronted with his obligation to consumptives no less than to society. Fortunately a wise and conservative regard for the needs of each class need inflict no hardship upon the other. Their interests are actually identical, and their relations should be reciprocal. That they are not so regarded at present is a reproach to the profession and should serve as an incentive to more active measures pertaining to the inspection and control of the disease, and to more duly considered methods of popular education. It is to be regretted that the advocacy of such extreme procedures as the isolation and segregation of consumptives, the placarding of houses, the necessary cremation of the dead, the enactment of laws governing marriage, and similar considerations have served only to inspire exaggerated feelings of alarm. It has been my observation that the public generally entertains no just conception of the manner in which the infection may be conveyed, and hence no appreciation of the comparatively slight danger of contagion under ordinary precautions. In like manner, it is quite unusual to meet consumptives who have received any competent instructions pertaining to the protection of the community. An unreasoning fear with a general prejudice on the one hand, is opposed on the other by a certain disregard for the rights of society, together with a natural resentment due to the humiliation imposed, and lack of moral support. It is apparent that the safety of the public must be exalted above the pride and sensitiveness of individuals, even though they constitute a large portion of the population. It is equally true that the burden of the consumptive should not be made harder to bear, and his chances to recover from a curable disease made less by reason of erroneous popular impressions and an inflamed public sentiment. Each class has its inviolable rights, and they should be made incontestable. It is incumbent upon the medical profession to recognize the claims each has upon the other, and in the capacity of arbiter to adjust apparent differences without injustice to either, and with broad sympathy for both.

What claims can be presented by each, and what measures can be instituted to satisfy them?

If pulmonary tuberculosis is preventable, the consumptive has a claim upon society by virtue of the very fact that he has become an innocent victim of the disease. He has been permitted to suffer a continued exposure to infection after having been subjected to such conditions of ventilation and hygiene as to bring about an increased susceptibility. Both the exposure and the lessened resistance have been to a great extent preventable. Who has jurisdiction to prevent, if not society? And if so, why is not the state morally responsible for its failure to do so?

It must be admitted that the consumptives of to-day, previous to the inception of the disease, had not been warned sufficiently of the practical dangers of infection, and instructed concerning intelligent measures of prophylaxis.

While this obligation on the part of society is now being fulfilled to some extent, it can not be said to apply to the great majority of those already afflicted.

Another claim of the consumptive upon society, and one reflecting directly upon the medical profession, is the distressing delay in securing accurate diagnosis. It is only with reference to early cases that consumption can be said to be a curable disease in the sense of its permanent arrest. Mistaken or delayed diagnosis at this time almost invariably associated with results of a most disastrous nature. The failure on the part of the medical profession to adequately appreciate the significance of rational symptoms, to recognize and interpret accurately the physical signs, has occasioned an annual sacrifice of thousands of human lives. The responsibility is more apparent when it is understood that too frequently the available data have been amply sufficient to warrant an early provisional diagnosis.

Referring to my observations previously published[1] on a series of 546 selected cases in private work, it is stated "that 388, or 71 per cent., arrive in Colorado with distinct evidence of tubercular infection in each lung." With reference to the duration of the disease before arrival, the total average period of delay from the time of definite onset of the disease, was a little over eighteen months, affording abundant opportunity for advanced pulmonary and constitutional impairment. "Is not the character of the cases sent to Colorado a striking commentary on the necessity of a more thorough appreciation of the principles capable of every-day application upon which to base early diagnosis?"

Has not the unfortunate victim of such delayed diagnosis a just claim upon the profession, and through it upon society, which in many states places no restrictions upon and enforces no qualifications for medical practice?

Another consideration to which the consumptive is entitled, is that of humanity. The pulmonary invalid is a human being and is not subjected to the same ultra-scientific principles that would be accorded the lower animals. He is above all entitled at the hands of the state to every energetic provision that may save or prolong life, and to every sympathetic attention that may help to alleviate suffering. Especially is this true of those who have not the means to subsist without work, independently of their more fortunate but often no more worthy fellows.

If the state is called on to provide institutions for her non-consumptive poor, who are frequently reduced to poverty through their own responsibility, and who are never to resume their functions as citizens, but are destined to forever remain as a burden to society, how much more should the state be obligated to provide similar institutions for those who have suffered, usually through no individual liability, who represent an entirely different class of citizenship, and who in many instances, with such a provision, can resume their duties and former positions in the community.

This claim of the consumptive poor is re-enforced by the added protection to accrue to society itself, through the control thus offered of those unable in their ordinary environment to observe sanitary precautions.

What are the claims of society with reference to the consumptive?

Inasmuch as the invalid, in the absence of certain precautions incident to his daily life, is a direct source of contagion, and therefore a menace to his family and the public, and whereas, a strict conformity to prescribed instructions actually prevents him from becoming an element of danger, it becomes incontrovertible that society has the right to expect and demand of the consumptive the most rigid observance of sanitary rules, the most hearty co-operation and willing sub-

1. Medical News, Sept. 30, 1899.

mission in the way of conservative municipal control. Popular prejudice and drastic legislative measures may inflict added burdens upon the consumptive, but the one purpose to be attained, public protection, will have failed of accomplishment if there is not secured his individual desire to faithfully perform his part. It is the invalid himself to whom our efforts must be addressed, and these in the form of instructive and persuasive appeals. With the acknowledgment of its own obligations, society justly will receive a recognition of its claim upon the consumptive. Through an active educational propaganda, these claims will meet with a ready response, the exception being only with those who are very ignorant or vicious, and for whom special detention institutions may be erected for the public weal.

As to the various means that may be employed to satisfy the joint claims of consumptives and society, it is primarily essential that there should be a uniformity of method in the several parts of the country. A concerted plan of action under national authority would be most effective.

A distinct bureau of public health, elaborating upon the excellent work now done by the Marine-Hospital Corps, having an advisory jurisdiction over state and county societies, and exercising immediate authority over all officers of public health, would do much along the lines of preventive medicine, if such could be made practicable without infringement upon the rights of states, and without the taint of national politics. It is to be feared that in some instances personal political ambition has biased the health authorities to an undue enthusiasm in the administration of public office. For such responsible positions men should not be selected as a result of political preferment, but should be chosen by their fellows on account of their peculiar adaptability to faithfully execute such labors, for which greater compensation should be rendered, commensurate with the arduous responsibilities involved.

The campaign of education and municipal control should include at once the compulsory notification and registration of all cases of pulmonary tuberculosis. This does not imply placarding of houses or apartments, isolation, or other personal humiliation, but furnishes an opportunity for more thorough inspection and supervision. Interference with social aspects and business pursuits is uncalled for. Quarantine and segregation are altogether impracticable. The family ties of several millions of people are not easily disrupted. Segregation is alone feasible and desirable in the case of the consumptive poor. It should be made clear that notification and registration does not carry with it the contemplation of interference with personal rights, unless rendered necessary by the repeated and intentional infractions of prescribed regulations. Notification should be made obligatory upon patient, physician and householder, and failure to comply should be punishable by fine. Periodical disinfection of apartments should be made under the supervision of the health departments, and always done following the death of the patient. It should be no hardship for the consumptive to be in a position to receive competent instruction from some responsible source, either directly or through the attending physician. By this means, added protection is accorded to himself and family as well as to the community.

The methods of instruction directed to the consumptive with his family, and to the general public should be to impart an appreciation of his obligations to society, and to secure his active, unremitting cooperation. He should be supplied with carefully prepared circular information explaining the dangers of infection and re-infection, describing in detail all necessary preventive measures, with an emphatic demand for their observance. It is of vital importance that all official information afforded the general public through any channel whatever should be essentially of a reassuring nature, although not minimizing the possible dangers resulting from the presence of the careless consumptive. Through the medium of public documents for general free distribution, the newspapers and public addresses, the public should be informed concerning the comparatively few methods of possible infection. It should be made clear that the infection can be thus conveyed only through gross violation of the simplest precautionary measures, and that a due regard for such sanitary rules afford protection from direct infection despite intimate and protracted association. It should be explained that the infection is exceedingly slow and rarely results from a single exposure. It should be emphasized that unless the soil is rendered receptive to the bacillus by lessened individual resistance, infection is unlikely, despite more or less exposure. Apropos of this, attention should be called to the necessity of greater individual care concerning mode of life, occupation and environment. The hygiene of the home should be discussed at some length, with especial reference to ventilation and sunlight.

In addition to these more direct methods of instruction through the medium of the profession, there should also be instituted a degree of governmental or municipal supervision of the construction of public buildings, tenement houses, factories, commercial establishments and conveyances. Ordinances should be enacted and enforced prohibiting expectoration on the sidewalks, crossings, or in any public place where people walk. Offenders should be punished for repeated violation of this. The objection to the occasional expectoration upon the street or in the gutter, disgusting though it be, does not appear of great practical significance, as far as actual danger is concerned, in view of the more direct exposure to sunlight, the frequent sprinkling and the fact of the bacilli not being kept in circulation and carried to the home by the sweeping skirt.

The spectacle of the use of the expectoration flask is revolting and hardly necessary. Small napkins of cheese-cloth held over the mouth in the act of coughing, to serve as a receptacle for sputum, and subsequently deposited in bags made of oil-silk, oil-muslin, or rubber, capable of disinfection, are infinitely more satisfactory from every standpoint.

Of surpassing importance is the matter of sanatorium provision for the various classes in appropriate climates. I can but take vigorous issue with those who fain would regard the influence of climate upon pulmonary tuberculosis as a "fetish of the past," now replaced by sanatorium régime. It is a matter of record that the satisfactory results obtained in the few institutions of this kind, without the most favorable climatic attributes, is largely due to the fact that only incipient cases are admitted. Disclaiming any desire to detract from the intrinsic worth of such institutions, I am forced nevertheless to make the query, "Have we evidence to substantiate the claim that the improvement in each case has been invariably due to the sanatorium itself?" Would not the same régime observed outside the institution have been attended with results almost, if not quite, as good? It is well known that a consid-

erable number of incipient cases get well in the less favorable climates even despite unfortunate conditions and environment, in the absence of rational measures, and often without the knowledge of the tubercular character of the affection.

It has been my experience in Colorado to observe patients presenting a history such as would be applicable to these cases, and showing after the lapse of several years, a record of a fresh infection. Upon arrival, in addition to the recent tubercular process, evidence is occasionally found, upon physical examination, to justify the theory of a previous infection, subsequently arrested.

I feel warranted, therefore, in asking if the heralded results of sanatorium treatment in unfavorable climates in incipient cases are not due in some measure to the simple relief from work, changed surroundings and detailed instructions, at least a portion of which could have been secured in many cases by the same competent medical adviser outside his institution. I have chanced to meet several such sanatorium cases that have experienced a return of their trouble, and have sought climatic improvement as more advanced cases after a disastrous period of delay. I am impressed that the sanatorium life for consumptives is of value largely by virtue of the enforced regimen, which appears to be practicable without the aid of the institution, especially among the better classes. There can be no question, however, of the improved facilities for the management of the consumptive poor, and even those less embarrassed financially, in properly conducted sanatoria in any climate. This, however, should not be construed as constituting an argument against the greatly increased benefits to be derived from appropriate climatic influences. While local sanatorium accommodation should be made for the consumptive poor in every state, I would strongly advocate the construction of special institutions in various regions applicable to the several stages and complications of the disease. Such sanatoria should be adapted to the special needs of the particular class for which they are erected, opportunity for outdoor employment being offered in some to those whose physical condition will permit, as a means of defraying expense. A number of these institutions could be under the control of one or several states jointly, some under federal supervision, and still others directed and maintained by the several benevolent orders and societies. It is for those in more or less financial distress that sanatoria are specially demanded. There is at present no provision for the enormous class of consumptive poor, who, unable to work, and rejected in turn by all the charitable hospitals, appeal despairingly for relief. For these there is now no alternative but death.

In these times of unexampled prosperity, have not our impoverished consumptives, with this preventable and curable disease, a claim upon society that can no longer be ignored. It is not a time for pedantic assertions concerning marriage laws for the pulmonary invalid, the undesirability of tuberculous offspring and the care of the consumptive dead, etc., but a practical application for the benefit of the living of those humanitarian instincts ever ready to respond to the call for help. A determined public effort toward the arrest and amelioration of the disease in those unable to help themselves would also be attended by prophylactic results of a most satisfactory nature.

THE PRESENT secretary of the navy of Portugal, Dr. Tiexura de Sauza, is a physician.

THE SERUMS IN TUBERCULOSIS.*

PAUL PAQUIN, M.D.
ASHEVILLE, N.C.

TOXINS IN THE TREATMENT OF TUBERCULOSIS.

The remedial use of these poisons has practically been abandoned. Inaugurated by Koch, who saw good results in the use of tuberculin in certain cases of lupus, his incomplete investigations were pushed into publicity prematurely by over-sanguine officialism in Germany, and great was the general disappointment and the damage to Koch's well-earned reputation when our hopes vanished.

Later, Klebs preconized another form of tuberculin called "antithesine." Much was claimed for this so-called modified form of Koch's original tuberculin, and it was used for a while as a remedy for tuberculosis. It did not add luster to the already high reputation of this scientist, and to-day it is not in general use.

Then came Dr. Von Ruck's antithesin. Von Ruck has for a few years published great promises about this agent, which he has named "watery extract" of the products of the bacillus of tuberculosis, and of which different varieties are offered. It is urged that this preparation is free from certain poisonous elements existing in other tuberculins, by virtue of which, irritation and fever are produced.

These toxins are each one form or another of tuberculin, the poisonous products of the germs and their culture, and all are modifications of Koch's original agent, repudiated by himself and his followers as a therapeutic measure. Finally, in the last three or four years, Koch recommended still another tuberculin which he termed "tuberculin residuum," T. R. for abbreviation. It consisted of a product including the natural poisonous liquid of a broth culture of the germ of tuberculosis and the toxins of the structure of these parasites, extracted by a process of pulverization, mashing (?), centrifugalization, filtering, etc. The revived hopes it created by the magic of Koch's name passed into oblivion within a few months of the first report.

Such are the toxins of the tubercle bacillus of which we have records as medicinal treatments for the "white plague." Only one remains in evidence, namely, Von Ruck's watery extract, for which he and some of his followers have established seemingly reliable, but in fact dangerously misleading, records, for their chief reports were made at the health resorts of North Carolina and Colorado, where equally good results have been obtained by numerous physicians by good management and climate alone.

The merit of all these products, if indeed they have any, which I do not deny to a certain degree and under proper circumstances, depends wholly on the poisons which they contain. If all the poisons are abstracted or neutralized, the product becomes bland, it becomes as water. If only certain kinds of poisons are abstracted it becomes modified in its toxic properties to that extent; and to that extent also it is depreciated in the power to produce reaction. Now, the toxin of an infectious disease is utilizable as a therapeutic measure only to the degree that it may, by reaction of the system, produce a measure of immunity more or less complete. That means vaccination. Vaccination is not a curative, but a preventive measure, and consequently should be applied before the existence

* Presented in a Symposium on Tuberculosis, to the Section on Hygiene and Sanitary Science, at the Fifty-first Annual Meeting of the American Medical Association, held at Atlantic City, N. J., June 5-8, 1900.

of the disease against which it is desired to vaccinate. We do not vaccinate against smallpox after but before the disease has invaded the system. Hence, the claims of the tuberculin adepts, that any kind of tuberculin is specifically curative, is not sustained by any scientific fact from disinterested sources. Its application must be limited to the very early cases in which the lesions are slight and the activity of the germs localized. Then it may be possible for tuberculin to establish a certain degree of immunity before the localized infection has taken on too serious activity.

The peculiarly effective action attributed to watery extract can be of no other character save that depending on a graded degree of blandness, or virulence if you please, affording a gradual exhalation of effects with less irritation, than by the administration of strong toxins at once.

We see from these data that none of the tuberculins have any general established merits as remedial agents against tuberculosis. Nor have we any reliable indications whatever that they may be used safely to advantage as vaccinating agents in human beings in the sense underlying anti-smallpox vaccination. In my judgment their only meritorious sphere so far is the field of diagnosis in cattle, which you kill if you find infected. I must differ from the views that it should be used as a means of diagnosis in human beings suspected of being afflicted with tuberculosis, but showing no sure sign of it. With the light before us, we are not justified in provoking in a human body a fever which may ignite the tubercular spark which nature was in her own way smothering, with 50 per cent. of chances in her favor of success without the physician's interference. It would be better to treat such cases as pretuberculous, and not arouse any inflammatory conditions anywhere, far less in the infectious foci.

SERUM IN TUBERCULOSIS.

The idea of serotherapy in general may be traced back to Maurice Reynaud's observation prior to 1888, when he discovered that the serum of vaccinated heifers at the seventh or eighth day conferred immunity to vaccinia in susceptible subjects. Next came Richet and Hericourt, in 1888, who by their experiments with a pyoseptic germ in animals, pointed to the probability of certain virtues in serum. Afterward, Behring established that serum was not an inert matter, but rather, in some sense, a vehicle carrying a vital principle, to which it was but natural to at once attribute an important rôle in the resistance of individuals to infections. This staggered the Metchnikoff theory of phagocytosis, and for a time lent ammunition to its adversaries. But far from annihilating it, it explained its philosophy much more clearly than its founder and his followers had succeeded in doing before. It pointed to the means by which the leucocytes destroy germs and their poisons in the system. Afterward Behring and Kitasato clearly demonstrated the effect of the immunized blood-serum against tetanus on one hand and diphtheria on the other. These investigations were sustained by Roux, of Paris, and others. Every one is familiar with these discoveries. I only need allude to them as a historical step in serotherapy in general.

Not very long after Koch's failure with tuberculin, Maragliano, of Italy, doubtless stimulated by others in France, notably Richet, who had experimented with serum of the dog and goat in consumption, recommended the natural serum of the ass in the treatment of consumption, on the ground that that animal is comparatively immune to this disease.

All these sera failed to produce permanent or even semi-constant beneficial results. In 1894, the writer experimented, in St. Louis, with horses, which he immunized against tuberculosis by graded and persistent injections of tuberculin, germ structure poisons (long before Koch preconized his tuberculin T. R., which is practically the substance here given), desiccated germs, and finally by the injection of pure virulent cultures of the bacilli administered both into the circulation and connective tissue. This was the first effort made in any country to produce immunized serum to use against consumption. The product was used in 1894 and 1895 in the St. Louis City Hospital in a series of tubercular patients of various kinds and degrees of involvement. The first report about them was made in the spring of 1895.

To comprehend the limits and possibilities and fallacies of serotherapy in tuberculosis, permit me to specify the properties of serum and then to explain them briefly.

1. Serum contains toward some microbes a positive bacterial power, which is destroyed at less than 60 C., whilst against others it does not.

2. It may be rendered capable of acting as a preventive, that is, immunizing agent, by a different element than that responsible for bacterial power, because the immunizing virtue resists a temperature of 70 C., i. e., less than the bactericidal power does.

3. It contains an antitoxic property which was long confounded, and is still in a measure, with the other properties of serum by many, particularly the superficial investigators and biased speculators, and the practitioners who have financial interests in confusing the professional mind by maintaining an error to sell their wares, which are not wanting in variety and incongruity in the therapeutics of tuberculosis. It is here that the advocates of the tuberculin or extracts of tuberculin under any name find a motive for their pleas.

4. Finally, as a therapeutic agent, not of serum itself, but of the figured elements of the blood from which it is obtained, there exists in serum the action of the leucocytes on soluble poisons. Let us understand these properties.

Bactericidal Power of Serum.—It is natural, not acquired. This influence is exerted on the micro-organisms themselves, and not on the system in which they live. This was demonstrated, in 1888, by Behring in natural rat-serum with regard to the anthrax bacillus. Speaking of serum pure and simple, twenty-four hours of contact prevents cultures of mixtures of serum and certain germs. But it is not a preponderant influence. It is not constant. In the white rat, refractory to anthrax, the bactericidal power of the serum may be only coincidental; on the other hand, while we find cases in which immunity exists in connection with a germicidal power of the serum, we find the contrary in other animals. For instance, the serum of rabbit's blood is bactericidal for the germ of anthrax, yet this animal is remarkably susceptible to that disease.

Again, the dog's blood is not germicidal to the anthrax germ, and yet that animal is comparatively immune to anthrax. So we conclude that the germicidal power of serum is not a preponderant factor in producing immunity, nor is it generally to be counted on as a constant or general therapeutic agent. Nor is

this virtue of great importance as a resisting power against disease.

Note that this power is destroyed at 55 to 60 C. without injury to the other properties. Consequently this faculty is a biologic one, the nature of which remains undetermined. The theories of Hankin and others that they are alexins, globulins, etc., have not been proved. But it does not resemble the globulicidal power.

Preventive and Curative Faculty of Serum.—First it is produced by the early action of disease elements. However, it may have a natural existence to a certain degree. As stated, this property was and is confounded with the antitoxin effect. Yet it is altogether different. Definite reliable antitoxic powers have been established satisfactorily only in the serum for tetanus and diphtheria. The preventive power is much more general than the antitoxic and far less specific, but it is comprehensive, valuable, and therefore useful in therapeutics. Researches on cholera, pneumonia, typhoid fever, etc., have demonstrated experimentally that in all these afflictions the serum of animals vaccinated against them protects a new organism, but remains without effect on the culture products of the causative germ. Thus, animals become immune, temporarily at least, to these maladies, without the action of antitoxins. How is it done? By cell stimulation, increasing phagocytic power and cellular nutrition. Metchnikoff demonstrated that, in hog cholera for instance, and others have done just the same with pneumonia, vaccinated animals resist the disease; that sick animals are cured by serum and yet no antitoxic power measurable by Behring's law exists. It is here, in this virtue, that we find assistance in the treatment of tuberculosis. It is a strong stimulation of the organic resistance. Metchnikoff and others have seen a stimulation by the preventive faculty sufficient to produce a large increase of leucocytes in the blood or about the locality of local lesions. I have observed this phenomenon locally in tuberculosis in man and beast. Diphtheria antitoxin, on the contrary, may reduce the leucocytes. It is also stated by Srabritchensky that the zymotic action of the leucocytes is augmented.

The Antitoxic Property.—It is artificial, not natural. Büchner thought this faculty the same as the preventive faculty. It is not, for it is not destroyed by heat in twenty-five minutes at say 65 C., which kills the immunizing faculty mentioned before, for pneumonia, cholera, typhoid fever, etc. By experiments, Behring and Kitasato arrived at a means of calculating the ratio of antitoxin necessary per weight of animals injected with diphtheria or tetanus toxins, thus measuring precisely the quantity of antitoxin necessary to neutralize the power of a given quantity of toxins which, without the antitoxin would prove fatal. Hence the idea that the antitoxic power is due to a chemical agent acting directly on the toxin of the germ, which it does not kill. This task remains for other phenomena, chiefly phagocytes. The recent theory of Behring that the antitoxins are due to the so-called "side-chain" atoms of the proteids which are necessary to functional activity, and which are increased by the action of bacterial poisons and then circulate in the blood as antitoxin, is most fascinating and supports the opinion of chemical antagonism. Thus we see that the germicidal, defensive and the antitoxic powers are different faculties. The first is natural and inconstant, but kills some germs; the next influences the organism in which the germs develop and may arrest microbial growth that way; the last or antitoxin power exerts itself on the toxic products only.

Action of Leucocytes on Soluble Poisons.—This tentative theory is not so well established as those first mentioned. It is reasoned from the experiments of Chatendy and Metchnikoff. These show that the poisonous action of germ poisons, vegetable toxalbumins or a serpent venom, are absolutely comparable to the action of infections, i. e., they produce hypoleucocytosis if the animal is sensitive or gravely ill; hypercytosis in cases of resistance. The theory is that the phagocytes by selective affinity absorb the poisons, as the cells absorb stains for instance, and that in those cells these poisons are destroyed by a cellular diastase on the principle that pepsin and trypsin can destroy the toxin of diphtheria and tetanus. Such are the biologic properties of serum.

The physiologic properties consist of influences apart from the infections, and are of utmost importance, though meagerly considered or ignored by the practitioner.

1. There is the globulicidal power of the serum, which consists of the faculty of the blood-serum of one animal to destroy the red blood-cells of another. This occurs as well out of the organism as in the circulation. This property, however dangerous in therapeutics, can be destroyed by the proper laboratory processes too often neglected, but which should be insisted on. It also suggests that we should not introduce therapeutic sera directly into the circulation.

2. The coagulating power of the serum means that the animal-serum introduced in the blood of another may produce coagulation by the precipitation of febrin. Richet pointed out this danger, and I have seen it realized. But this property also may be destroyed by laboratory processes.

3. The toxic power of the serum may produce symptoms of intoxication, with myosis, temperature, dyspnea and eventually convulsions. This property is attributed by Mr. Bosc to albuminoid substances. I am convinced, however, that this is not the only source of this unfortunate faculty. It may come from numerous causes dependent on ill health of, on digestive troubles in, the animal supplying the blood, thus creating soluble poisons which circulate in the plasma. It may come from the poisonous waste of metabolism, when an animal is bled and the blood is loaded with unknown quantities of toxic substances in process of transformation or on their way to excretory channels.

All of these are important questions, which the practitioners should insist must have been properly respected by the producer of the sera of any kind that he uses—a condition that I know some producers wholly neglect.

Is the applicability of serum in tuberculosis warranted by the general facts established of the serum properties? If so, when, how and in what cases? What serum should we use? What may we expect?

To the first question I answer, yes. Serum is applicable as a remedial measure. It has, by virtue of some of the effects mentioned above, curative properties. I point with gratification to the recovery of 29 cases of pulmonary, throat, bone, joint, kidney and testicle tuberculosis that recovered under my observation and with serum treatment exclusively in most of them, from the states of Missouri, Louisiana, Indiana, Illinois, Ohio, Pennsylvania and Iowa. These patients were treated, with few exceptions, in the city of St. Louis, and all of them under climatic influences fatal

to consumptives. I have kept track of most of them and they are in the enjoyment of sufficiently good health to-day, four or five years after their treatment, to keep at their various occupations.

When and how to use serum are questions that belong to practice.

What sera should be used? That is a very important point, as I have just stated. As you have seen, serum naturally possesses dangerous properties that must be eliminated. Some sera for various diseases are not thus purified. I have tested many in which the poisonous properties are thus retained.

Can serum be depended on as an agent to produce lasting immunity against tuberculosis? In the first place I believe that immunity against this disease is probably always relative and limited as to degree and duration. But it is measurable to a degree, and to that extent serum may be useful. But, although I have long experimented with, used and tried to perfect serum, I am still of the opinion from which I have never departed, assertions to the contrary notwithstanding, that serum is not yet to be depended on as an infallible immunizing agent in the sense attributed to diphtheria serum. Being in the line of natural law, and having preventive and curative properties, it is often a useful remedial measure in a great many cases. It has its sphere of good influence in the hands of the discriminating practitioner. But in a disease as complex and complicated as tuberculosis usually is, we can not, in justice to our patients or ourselves, afford to neglect any and every other means possible to arrest the disease where it exists, and to prevent the occurrence where it is not. Management, climate, nourishment, serum, everything useful should be resorted to, taking care always, in every single case, to treat the patient according to the conditions existing, according to their merits, in other words, individualizing instead of generalizing.

HOW SHALL WE INDUCE IMMUNITY IN TUBERCULOSIS?*

H. B. WEAVER, M.D.

ASHEVILLE, N. C.

When an organism has been infected with pathogenic germs to such a degree as to produce a disease, and spontaneous recovery occurs, a change has taken place, so that the specific germ which produced that disease can find no longer suitable soil for multiplication and growth, and hence its deleterious effects on the tissue-elements cease to exist. This changed condition we call immunity. Some individuals possess this immunity naturally to a marked degree, while others exhibit only a very feeble resistance to bacterial organisms. It is relative also in degree in different races. For instance, tuberculosis is comparatively rare in the Hebrew race, while in the American Indian we find great susceptibility. Immunity is never general, conferring protection against all contagious or infectious disease, but always special, according to the disease, rendering a person perfectly invulnerable to one and not to another.

Some infectious diseases differ, as diphtheria, while others, like tuberculosis, retain their local character for long periods of time.

Statistics show that in from 25 to 50 per cent. of autopsies made on the bodies of those who have died of other diseases, evidences of former tuberculosis are apparent either in the healed or latent form, and in which nature appears to have accomplished the occurrence of immunity against further advance of the disease. That this is a physiologic process there can be no doubt. It has been proven by experiments on animals that artificial immunity can occur by the use of the tubercle bacillus substance in the form of some one of the pure culture products, as that of Koch's tuberculin or of Von Ruck's Watery Extract. If natural immunity is possible in the human subject and artificial immunity can be produced in animal experiments, may we not inquire why natural recovery so often fails to take place?

"Immunity depending on the products of the specific germs, why do the products formed by the tubercle bacilli, in the infected tissues of tuberculous patients, so often fail to induce it, not only in the local and chronic cases, but also in those in which the disease is disseminated?" On a correct answer to this question depends the basic principle of successful therapeutic measures for the real cure of this disease.

In tuberculosis we have no such intoxication as occurs in diphtheria, and formation of tubercles may occur without any acute symptoms. This points to the absence of specific toxins which Von Ruck claims,[1] and with much apparent reason, to be accounted for by the circumscribed localization of the primary lesion, by its slow extension, by its non-vascularity of tubercle, by its rapid degeneration, but above all, by the resistance of the tubercle bacillus to disintegration, and to giving up its contained proteids to the blood, owing to the presence of large quantities of fat in the non-soluble cell-wall composed largely, if not entirely, of cellulose. As a proof that none, or but extremely small quantities, of specific toxins are liberated, he points to the great similarity of tuberculous patients, especially in the early stages, to the artificial introduction of specific toxins, to which they react with general symptoms to a degree that the toxins are used as means for diagnosis. On the other hand, he points to the fact, that beginning with very minute doses, the specific toxins can be introduced in constantly increasing quantities without any general disturbance or toxic symptoms. If he is right, we can readily see why this immunizing substance is not available at a time most needed by the system.

Victor Vaughan, whose views coincide with Von Ruck's, asserts that: 1, marked artificial immunity to an infectious disease has not been obtained except by the introduction into the animal of the germ substance, either inclosed in the cell-wall or in solution; 2, sterilized cultures contain the germ substance in one of these forms; 3, the same immunizing substances exist in the bodies of the bacteria grown on solid media and killed by chloroform; 4, the same immunizing effects, varying, however, in degree, are obtained with bodies of dead bacteria morphologically intact, or in solution, with the living bacteria modified or reduced in virulency." Analyzing these propositions, we infer that acquired (artificial) immunity may be induced in two ways, 1, by an attack of the diseases ending in recovery, and 2, by inoculation with the specific toxin.

The immunity that results from an attack of the disease is caused by the entrance into the organism of living germs more or less virulent, and to whose stimulating qualities the organism is yet able to respond with sufficient energy in causing the obscure change in its tissues by which they become antagonistic to the germ. That which comes from vaccination in variola

* Read before the Tri-State Medical Society, Charleston, S. C., Feb. 21, 1900.

1. Journal of Tuberculosis, Vol. II, No. 1, p. 94.

is due to the introduction of germs, living, but modified more or less in virulence. That which is secured by the artificial introduction of specific toxins is produced in like manner, but without the presence of virulent germs, the toxins having been separated outside of the body.

With these facts before us, the conclusion is inevitable that the immunizing substance is contained in the bacterial cell, that each kind of pathogenic germ has its own peculiar toxin, which in small doses confers immunity, and it is that part which gives to the germ its distinctive qualities.

The practical methods of inducing immunity reduce themselves to one and the same principle, that is, the introduction of germ toxins into the body.

The immunizing function which has been induced in an individual organism can, however, not be transmitted to another organism. Leaving, therefore, those principles upon which immunity rests, and viewing the question from a practical standpoint, may we not inquire whether we can, in the treatment of tuberculosis, imitate nature in her method of cure, by supplying artificially the toxin of the tubercle bacillus, and introduce it into the human organism in such a manner that it will safely and effectually arouse the latent energy of the tissue-elements, which will in turn produce immunity? The solution of this question rests on the etiologic principles enunciated, and must lead to the conclusions which are eminently scientific and logical.

Are we actually in possession of the required substance, and what is its nature? Is it a toxin or an antitoxin? Can we safely administer it without undue reaction which would be dangerous to the patient, and at a time when immunity would be of no avail, and before the patient is hopelessly doomed?

Is the blood serum from an animal previously treated with specific toxins such a substance?

A horse is rendered immune to diphtheria by the use of specific products of the Klebs-Loeffler bacillus. As a result, an antitoxin is generated in some organ or organs of the horse and circulates in the blood. When the blood clots, the antitoxin is found in the serum. If this serum is injected into a diphtheric patient, in a sufficient quantity and at the right time, the patient will become immune to the diphtheria poison for the time being. But this immunity does not actually belong to the patient. It is stolen property. It still belongs to the horse. The cells of the horse and not the human cells manufacture the toxin. The horse can not transmute any of its antitoxic functions to the sick person.

In tuberculosis we may find a parallel in this illustration. If it be true that immunity consists in the capacity of the organism to protect itself from the deleterious effects of pathogenic micro-organisms, and the tubercle bacillus substance itself is the essence of the bacterial germ which immunizes the system, there can be no reasonable basis for the claim of the production of immunity by antitoxin serum. The adoption of this theory would abrogate the principles of cellular activity. It contradicts a general biologic law that the necessity for a function creates a function, or, stated conversely, the disuse of a function destroys it (Peavy).

Carl Fisch, an exponent of serotherapy, admits that "the amount of toxin present at any one time in a tubercular organism is not great, and it would be absolutely absurd to think that by neutralizing it the disease could be stopped." "Owing to the slow production of the toxin it is impracticable to charge the organism with a great amount of antitoxin, since it would have disappeared long before being called to act." He says further, that the amount of antitoxin in his serum is comparatively small and that there is no present means of increasing its potency, and that beside the toxin immunization, it is the only treatment which rests on a scientific base, and that the imperfections in serotherapy should not be a contraindication for its employment.

From these views we make the deduction that continued protection from tubercular invasion would necessitate the continued introduction of antitoxin, which is impracticable. If an artificially introduced antitoxin is an intimation of nature's method of cure, it would seem reasonable to suppose that, if in a disease as essentially chronic and local as is tuberculosis, immunity is conferred, it would be necessary to supply the system continuously and indefinitely in order to preserve the immunity and prevent a relapse.

Trudeau and Von Ruck in reporting their experiments for the purpose of proving the value of serum preparations for tuberculosis made by themselves and by others, found that in no instance could they discover any germicidal or immunizing properties in the different serum preparations, and seem to accept the plausible theory of Professor Koch, that a serum that would neutralize the toxic effect of a tuberculin product might not prevent the growth of tubercle bacilli in the tissues, nor their destructive action in the organs of the body.

On the other hand, turning to the direct toxin method of cure, we see greater hopes for success. If the immunizing substance is contained in the specific germ only, and the successful immunization with Tuberculin R and Watery Extract of tubercle bacilli has been obtained in the animal experiments, which facts are attested by various colaborers in all parts of the world, why should we hesitate to adopt this method of treatment? Its safety, especially with the Watery Extract, having been observed by myself in patients of Dr. Von Ruck and my own, in all stages of the disease, leaves in my mind no doubt that the immunization of tubercular patients by the direct or toxin method is about to pass beyond the experimental stage, and become one of the fixed and recognized therapeutic modes of procedure in our battle against this formidable enemy of mankind.

The superiority of the Watery Extract over all prior tuberculin preparations consists in the fact that this is a pure solution of the tubercle bacillus substance, repeatedly filtered through porcelain, and therefore containing no fragments of isolated virulent germs, removing the apprehension that through the use of tuberculin preparations the tubercle bacilli might become transplanted to other healthy portions of the body.

Of course, the earlier the disease is discovered and treated the greater will be the benefits from such specific treatment. Its use can not be expected to heal and repair the destructive lesions caused by the softening and liquefaction of degenerated tubercles. All it can do for such is to fortify the remaining healthy tissues against the primary disease, and prevent the eruption of a new crop of tubercles, and the further such cases have progressed in the degeneration and destructive processes the more will it be necessary to bring to our aid the additional resources of diet, hygiene and climate.

New Method of Vaccination Against Anthrax in Cattle.—Arloing states that the successive or simultaneous injection of anthrax virus and serum from an immunized heifer will successfully vaccinate animals. He has succeeded, by using attenuated cultures, in conferring preventive immunity on cattle with a mixture of virus and serum requiring only .5 c.c. of the latter for one animal.

CASE OF FATAL FETAL ICHTHYOSIS.*

ANNIE STURGIS DANIEL, M.D.

Physician in Charge of Out-Practice, N. Y. Infirmary for Women and Children.

LOUISE CORDES, M.D.

Pathologist to the N. Y. Infirmary and Assistant Pathologist to the Babies' Hospital.

NEW YORK CITY.

Maternal History.—Strong, healthy peasant woman, native of Sicily, 30 years old, has never been ill according to the statement of herself and mother. Neither she nor any member of her family has had any eruption of the skin, and no trace of syphilis, alcoholism or tubercolosis in this woman or her family could be elicited. Menstruation began at 14 years and has been regular and normal. There has been no uterine disease. She has had 6 pregnancies: the first 10 years ago; the second 8 years ago; the third 4 years ago; the fourth an abortion at 40 days, the cause of which is unknown; the fifth pregnancy was 2 years ago, and the sixth the present fetus. All of the pregnancies, except the fourth one and the present, were normal in every respect. In January, 1899, the woman was much distressed over the illness and death of her child, which she was nursing. She menstruated in February, 1899, the exact date of which she has forgotten.

History of the Pregnancy.—The woman was much pleased to find herself pregnant. Nothing unusual was noticed until the last two months, when she seemed larger than in former pregnancies and found it difficult to lean forward; for twenty days before the birth of the child she had had much pain in the back. She had worked, as usual, at her occupation of finishing trousers during her entire pregnancy, working from 6 a.m. to 11 p.m. Although closely questioned no history of a maternal impression could be obtained, even after a suggestion that there might have occurred some impression during the pregnancy. Nothing could be ascertained except her grief for the child which had died. The pregnancy terminated October 17, 1899, about two weeks before the woman had anticipated. In the evening of October 15 the woman was seized with pain in the back and a discharge of water. A midwife, who was called, declared that labor had not begun. During the 16th there was some pain and continual discharge of water. After midnight on the 17th, acute pain began and the child was easily delivered by the midwife at 7 a.m. October 17, the head presenting. The mother's recovery was without incident. On the seventh day she was at work again on the trousers.

Paternal and Family History.—Father, 40 years old, is a day laborer, and a strong, apparently healthy man. He is not alcoholic, has had no eruptive disease of any kind, and was never syphilitic. Of the four children born to the couple, two were boys and two were girls. Two are now living. The first died of an unknown disease in Sicily, the last of bronchopneumonia in January, 1899. One of the two living children is markedly rhachitic, as was the child which died in January. The family presents the usual features of east-side, overcrowded, under-fed, ignorant people, and with another family occupies three small rooms, only one of which is light, a total of eleven persons in the apartment.

History of the Child.—It was seen first at 11 a.m., five hours after birth, during which time it had been lying in a dirty bread-pan, wrapped in a single layer of cloth. It had passed both urine and meconium. The child was admitted at once to the New York Infirmary for Women and Children. It was wrapped in cotton, after having been anointed with oil. The child cried continuously, rather a penetrating cry of distress. Sleep was almost impossible. The child was disturbed only to keep it clean, as any jar of the crib or exposure to the air increased the crying. Respiration was irregular. The whole surface of the body was cold, and it seemed almost impossible even with hot-water bags to make it warm. Urine and meconium were passed at intervals. It was utterly unable to suckle, and swallowed milk from a dropper very imperfectly, with great difficulty, and only when the dropper was placed far back in the open mouth. The child died quite suddenly twenty-seven hours after birth. The temperature taken immediately after death was 103 F. The apparently increased distress, at the slightest movement during life, prohibited the making of any ante-mortem examination. The body during life, was at all times rigid and cold, and the extremities remained in the fetal position. The most marked symptoms were the incessant crying and the limited ability to sleep or swallow. So distressing were the symptoms that it was a great relief to the attendants when the child died.

Description of the Child.—The most striking feature is the absence of any resemblance between the child and a human being or any other living thing. The only part of the body that seemed capable of motion was the tongue. The body presents the appearance of having been incased in an integument much too small for the skeleton, and nature in an attempt to make it fit had so stretched the skin that it had been torn in some places completely through, and in others partly through. Where it was torn through, a purple-colored slit appeared; when torn partly through, a yellowish-colored fissure remained. There is no uniformity of arrangement of the fissures. Fewer are found on the back, and those on the extremities are more shallow. Neither is there any uniformity in their length or depth. The color of the fissure, a purplish-red, is in marked contrast to the color of the skin. In a few places bright blood is found, as if the break were of recent origin. The integument gives the same sensation as sole leather, namely, inelastic. The whole body is cold and rigid.

The scalp is divided into fissures and very numerous irregular conical projections, varying in size. A few thin hairs are found on the lateral surface of the scalp. The external ears are replaced by a collection of the conical projections. The external auditory meatus is found with difficulty.

The palpebral fissures are filled with purplish-red masses; deep down in the sockets eye-balls can be distinguished. Neither eyebrows nor eyelashes are numerous, only a few of each being present. The nose is flattened and is identified by the widely-opened nostrils.

The mouth is widely open, showing a non-hypertrophied tongue. The lips are of a purplish-red color and everted. Fissures and conical projections are present on the face. The mouth measures 5 cm. in length and 3 cm. in breadth; circumference of head, 31.5 cm.; glabella to occiput, 18.5 cm.; ear to ear, 15.5 cm.

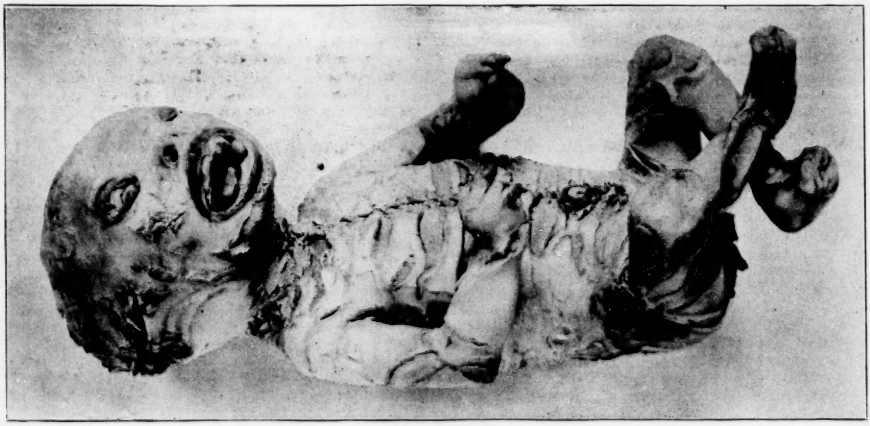
The neck is short. Anteriorly a fissure extends from the neck to the umbilicus, 2 cm. in width. From this fissure ridges of yellow skin and purple fissures extend toward the axillæ; they are of irregular size and depth. There are eleven distinct fissures on the right side, and thirteen on the left. The circumference of the chest is 28 cm.; of the abdomen at the umbilicus, 28 cm.

*Presented to the Section on Diseases of Children, at the Fifty-first Annual Meeting of the American Medical Association, held at Atlantic City, N. J., June 5-8, 1900.

The extremities are rigid and in the fetal position. The arms can be raised only at right angles with the body. They can not be extended at the elbow. The hands are thickened and the fingers are rudimentary. The legs are crossed, the right one over the left. The motion at the hip and knee joints is very imperfect. The toes are rudimentary.

The median raphe in the scrotum is faintly marked; testicles are not descended. The penis is ½ cm. in length, and the anus open. The length of the fetus is 42 cm., and its weight is 4 pounds 13 ounces. The placenta was destroyed immediately after birth by the midwife.

Dr. J. W. Ballantyne, of Edinburgh, collected and published in 1895 an exhaustive summary of the cases at that time known. The first case published was by Richter, in 1792. Ballantyne found 42 reported cases. Since then I have found 3 cases, one by Drs. Manning and Southworth, of New York, one by Dr. A. Wassmuth, and one by Dr. Gaetano Finizio, Naples, in *La Pedriata*.



Fatal Fetal Ichthyosis.

Of the cause of fetal ichthyosis practically nothing is known. That it is not a fatal disease *in utero* is demonstrated by the fact that only one case has been stillborn. In my case it was impossible to find any clinical cause for the disease.

An autopsy was performed on October 18, three and a half hours' post-mortem, the body having been kept on ice. A description of the general appearance of this eight-months' fetus has been given by Dr. Daniel.

The upper and lower eyelids are strongly everted, presenting two pouting masses of mucous membrane, which are firmly united throughout their entire extent. Eyeballs are found lying deep in the orbits. Over the right parietal region the scalp is boggy and is raised from the bone by a large amount of blood, which escapes on incision. A hemorrhage covers the superior surface of the cerebellum and medulla, the posterior two-thirds of the left temporosphenoidal lobe, as well as the lower half of the left parietal and occipital regions.

On incision, the skin of the thorax is found to be of leathery consistency and firmly adherent to the muscles beneath; a panniculus adiposus is absent.

The apex of the heart is found in the fifth interspace between the midclavicular and anterior axillary lines. The left ventricle and both auricles contain soft, dark-red clot. The heart muscle is apparently normal. The valves are normal, the foramen ovale showing a slit-like opening.

No pleurisy is present. Both lungs are mottled, bluish-red and pink, showing on section areas of atelectasis together with small areas of well-aerated tissue. Anteriorly there are small areas of emphysema. The middle lobe shows anteriorly a spot of emphysema about three-fourth of an inch in diameter; the remainder of the lobe is well aerated.

The bronchial lymph nodes, thymus and thyroid bodies, spleen, pancreas and adrenals are normal. The liver is congested.

In the stomach the blood-vessels of the mucosa are congested; the organ contains curds and a considerable amount of mucus. The rectum and lower colon are filled with meconium; the mucous membrane and walls of both are normal. The vermiform appendix is normal, containing meconium. The small intestine is normal throughout, the upper portion containing yellow pasty material. The mesenteric lymph nodes are dark-red and normal in size. The kidneys are lobulated and grayish-red; the capsule strips readily and the surface is smooth. On section the cortex is not thickened; the pyramids are pale; the markings are blurred. The bladder is contracted and normal.

Anatomical diagnosis: Fetal ichthyosis, cephalhematoma, meningeal hemorrhage, and atelectasis, with congestion of all the organs.

Material was taken from all the organs and preserved in formalin solution followed by alcohol. Cultures were made on glycerine-agar from the skin, lungs, heart's blood, thymus and thyroid bodies, liver, spleen, and kidneys. A bacillus in pure culture was found in all these organs. This bacillus was grown on the following media: Lactose-litmus-agar, glucose-agar, glycerin-agar, plain-agar, gelatin, potato, glucose, saccharose, lactose and neutral bouillon, litmus-milk and dextrose-free broth.

It was also tested by animal experiment, and showed morphologically and biologically all the characteristics of the colon group.

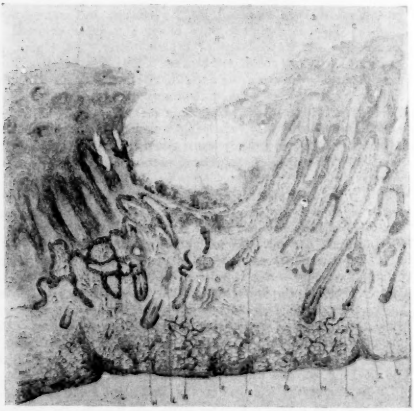
Bacteriological diagnosis: general infection with a member of the colon group.

Microscopic examination: In the skin of an imperfectly developed finger the layers of the epidermis are found less broad than normal. The corium is edematous, but the sweat-glands are normal. Intense congestion of the blood-vessels exists, the capillaries in the papillæ of the corium being widely dis-

tended with blood. A few small lobules of fat are found in the subcutaneous tissue.

The layers of the palmar epidermis, with the exception of the stratum granulosum, which consists of three layers of cells, show thickening, which is less marked however than in the skin of the back and chest. The papillæ of the corium are hypertrophied. The sweat-glands are very much increased in number resembling test-tubes in a rack, but are apparently normal in structure.

Sections were made through a portion of the skin of the chest, showing a deep fissure in the epidermis. Considerable hypertrophy of the papillæ of the corium exists. The elastic tissue is diminished in amount, and there is an edematous condition of the corium. The stratum Malpighii is thicker than normal; the stratum granulosum does not appear to be thickened. Both the stratum lucidum and the stratum corneum are much broader than normal, especially the latter, which is enormously increased in thickness. The rupture of the epidermis is in places seen to involve all the layers. The deepest cells of the stratum Malpighii are intact in places, but here and there the fissure extends beyond these, extensive hemorrhage due to rupture of the capillaries in the papillæ having resulted. The skin of the chest contains numerous hairs, whose



Section of Skin from the Thorax, Showing Fissure.
A. Stratum corneum. B. Stratum lucidum. C. Stratum granulosum. D. Stratum Malpighii. E. Hemorrhage. F. Dilated blood-vessels. G. Sweat-glands. H. Hairs. I. Sebaceous gland. K. Degenerated sebaceous gland. L. Arrectores pilorum. M. Panniculus adiposis. N. Fissure.

structure appears to be normal. The sebaceous glands are normal in number, the nuclei of the epithelial cells within their ducts are markedly degenerated in some cases, and a horny layer is found lining the upper portion of the duct. The arrectores pilorum muscles are normal. The blood-vessels of the corium are markedly congested. The panniculus adiposus is poorly developed.

As in the sections described above, the papillæ of the corium of the scalp and all the layers of its epidermis are thickened, save the stratum granulosum. The hair follicles are very numerous and most of them are empty. Hairs when found are normal. The sweat-glands are increased in number. The sebaceous glands are numerically proportionate to the hair follicles and are normal in structure.

For purposes of comparison sections were made of skin from different portions of the body of a fetus of six and a half months, as well as of an infant at term.

The umbilical cord is normal. The aorta and the heart muscle of both auricles and ventricles are normal. The blood-vessels of the heart, as well as of all the other organs, are much congested. In the lungs large areas of atelectasis are shown. The thymus and thyroid bodies are normal.

The liver cells show cloudy swelling; the epithelium lining the gall-ducts is normal. The pancreas and adrenals are normal. Kidneys: general connective tissue normal; the epithelium of the secreting tubes shows granular degeneration, groups of tubules containing exudate; the epithelial lining of the loops is normal and the latter contain no exudate; the same may be said of the collecting tubes. All the blood-vessels are congested. The epithelium lining Bowman's capsules is slightly swollen in places; the Malpighian tufts do not all fill their capsules, the space between tuft and capsule occasionally containing exudate.

The intestine is normal but the peritoneum is edematous.

The mesenteric lymph nodes are normal, save for marked congestion of the blood-vessels.

Sections from the cerebral motor cortex, ascending frontal and occipital convolutions, as well as from the paracentral lobule, show edema of the pia and hemorrhage into its tissues. The brain substance appears to be normal.

The blood-vessels and nerves studied in numerous sections from the different organs are quite normal.

Sections stained for bacteria show rods scattered and in groups in the blood-vessels as well as between the tissue elements. In the skin, bacilli are found between the cells of the epidermis, having penetrated as far as the cells of the stratum corneum. The organism found was probably the result of a terminal infection, and not an etiological factor in the production of the disease.

Microscopic diagnosis: Ichthyosis, atelectasis, acute exudative nephritis and congestion of all the organs.

SUMMARY.

1. All the layers of the epidermis, save the stratum granulosum, are thickened, notably the stratum lucidum and the stratum corneum; the latter is enormously hypertrophied.

2. The corium is edematous and contains less elastic tissue than normal. The papillæ of the corium are hypertrophied and their blood-vessels are widely distended with blood.

3. The sweat glands are in some places markedly increased in number, but are normal in structure.

4. The sebaceous glands are normal in number, but their ducts in some cases, and occasionally their secreting portions, show degenerative changes. The arrectores pilorum muscles are well developed.

5. The panniculus adiposus is everywhere poorly developed, being almost absent in places.

6. The kidneys show the lesion of acute exudative nephritis. In the liver there is granular degeneration of the hepatic cells and the meninges of the brain show extensive hemorrhage. The other organs present no pathological changes save intense congestion.

Congenital ichthyosis has been studied by numerous observers. Ballantyne[1] made a very thorough study of the disease. He regards the descriptions of the microscopical appearances of the integument given by Kyber[2] and Carbone[3] as the best. The latter considered that the thickening of the epidermis was due entirely to hypertrophy of the stratum corneum. The rete Malpighii, with the exception of the interpapillary prolongations, he described as not only not thickened but in places actually diminished in breadth. He denies the existence of a stratum lucidum. The external root sheath of the hairs he finds greatly thickened and the hairs abnormally thin. According to Carbone's description, the sebaceous glands are usually atrophic. Occasionally the horny layer extends into the sebaceous ducts, the entire gland being at times converted into a cavity surrounded by horny walls. He finds no hypertrophy of the sudoriparous glands, noting only that that they are well developed. Kyber differed from Carbone with regard to the stratum Malpighii, describing it as increased in thickness and possessed of greater proliferating activity. He finds the sudoriparous glands hypertrophied. Ballantyne states that the corium does not show in fetal ichthyosis any marked departure from the normal.

1. The Diseases and Deformities of the Fœtus. 1895.
2. Eine Untersuchung über das universale diffuse congenitale Keratom der menschlichen Haut. Med. Jahrbüch., 1880, p. 397.
3. Un Caso di ittiosi congenita. Archivo per le Scienze Mediche, 1891, xv, p. 349.

The discrepancies seen in the pathological findings of Carbone and Kyber, Ballantyne explains by assuming that the case of Kyber was a more marked one than that of Carbone.

A. Wassmuth[4] in 1899 described the microscopic appearances in the skin of a case of congenital ichthyosis born at term. He notes thickening of the layers of the epidermis; in places he finds nucleated cells containing granules of keratohyalin, but he accentuates the fact that a proper stratum granulosum was not demonstrated anywhere save in sections of the scalp. The stratum corneum he found to be thickest in the scalp, palms and soles, and thinnest in the skin of the chest and abdomen.

Wassmuth found that different lamellæ of the stratum corneum respond variously to stains; he employed Gram's stain, recommended by Paul Ernst, for the detection of keratin, staining sections of the skin of fetuses of various ages as a control. He reached the conclusion that a differentiation of a stratum granulosum, stratum lucidum and stratum corneum in the integument in congenital ichthyosis is not possible, the early stages of keratinization occurring throughout the entire epidermis. Wassmuth emphasizes the fact that a fully developed stratum corneum does not exist, explaining in this way the abnormal breadth of the epidermis.

The stratum corneum is relatively thin in embryos as a result of maceration, which causes desquamation of the superficial layers. In cases of fetal ichthyosis exfoliation occurs only in moderate degree or not at all, and Wassmuth believes imperfect keratinization to be the cause.

Thickening of the stratum Malpighii, he thinks, accounts in part for the hyperplasia of the horny layer; furthermore the enlarged and numerically increased papillæ with their proportionately more complex capillary networks aid the increased development of the epidermis. He describes the papillæ of the corium as very high and numerous, "enormously increased in all parts of the body" and containing rich networks of distended capillaries. The sweat glands are described as everywhere increased in number and normal in structure. The sebaceous glands are increased in number everywhere save in the scalp; they are frequently somewhat enlarged and their ducts are at times distorted, being dilated and lined with a horny layer. The elastic tissue of the corium is diminished in amount and the panniculus adiposus he describes as well developed in skin removal from the back of the neck.

Recently G. Finizio[5] reported a case of fatal fetal ichthyosis.

A microscopical examination of the the skin of this fetus showed the stratum Malpighii to be of variable depth; in some places thicker, in others, especially on the plantar surfaces, thinner than normal. Mitotic figures are not more numerous than in the skin of a normal fetus of the same age.

Finizio questions the presence of a true stratum granulosum, but finds numerous cells with protoplasm containing deeply staining basophilic granules.

A well-defined stratum lucidum was not found; the layers of the stratum corneum are wavy in outline and have a reticular appearance. The connective tissue of the corium is infiltrated with lymphoid cells, the elastic tissue being normal.

The papillæ are numerous, large and richly vascular.

The sebaceous glands are well developed, some acini showing dilatation and degenerative changes. The sudoriparous glands and the arrectores pilorum muscles are well developed, the former especially on the plantar and palmar surfaces.

It will be seen that the microscopic appearances of the case described in this paper resemble in many respects those noted by Kyber and Wassmuth.

As a result of some influence not understood, the epithelial elements of the skin in this disease are apparently stimulated to active growth, the rete Malpighii sharing the general tendency to cell proliferation. Consequent upon this proliferation, the glands which are offshoots from the stratum Malpighii are increased in number. To meet the increased nutritional needs of the rapidly-growing epidermis the papillæ of the corium enlarge and multiply.

Discussion will appear next week.

4 Beitrag zur Lehre von der Hyperkeratosis diffusa congenita. Beiträge zur path. Anat. und Allgem. Path., 1899, p. 10.

5. Su di un caso di ittiosi fetale grave. La Pediatria, Anno viii, N. 3. Marzo, 1900.

GASTROINTESTINAL HEMORRHAGE IN THE NEW-BORN.*

EDWARD H. SMALL, A.M., M.D.
PITTSBURG, PA.

On Sept. 18, 1899, a fine, plump baby girl, eight pounds in weight, was born. The mother was a primipara, and her period of gestation 290 days. The family history on both sides was good.

Labor pains came on strong at 12 a. m., and as they continued, but with little advance of the child, forceps were applied at 5 p. m., delivery being quite difficult. The cord was cut in about five minutes after birth. The child was somewhat asphyxiated, but in a few minutes was breathing nicely. She was put to the breast in about one-half hour, when she sucked finely. All the next day she nursed well, as all healthy babies should do. Her bowels were moved and she passed water freely.

On September 20, at midnight, when the baby was 31 hours old, she vomited and passed by the rectum some material which looked much like meconium. I saw the child in twenty minutes, when she seemed all right, but the nurse said that she had been cold and somewhat collapsed just after the hemorrhage. The material she had passed both by the mouth and rectum, looked like meconium mixed with blood. At 2:15 a. m. she passed some more material by the rectum, but none by the mouth. This was almost pure blood and quite profuse. It looked like the hemorrhage of typhoid fever. At 4 a. m. she had another hemorrhage per rectum. This was of pure blood, very profuse, saturating the napkin. She was in a state of great collapse, extremities cold, pulse scarcely perceptible, and I gave her 1/150 gr. of the sulphate of morphia and 1/5000 gr. of atropia hypodermically, applying warmth to the extremities. Albumin water and brandy were given by the mouth, and the child was enveloped in absorbent cotton, especially about the pelvis.

At 8 a. m. still another abdominal hemorrhage of pure blood occurred, and saturated the cotton; this left the baby practically bloodless, and the pulse imperceptible. She seemed to have lost all her fat, was all shriveled up, and looked like a child after an attack of cholera infantum. At 2 p. m. she passed a few dark clots. Her condition was now desperate, and she was very restless and irritable, with temperature 104 F. An ice-cap was put to the abdomen, hot-water bottles to the extremities, and albumin water and brandy given as before. One minim of aseptic ergot was given hypodermically. At 7:30 p. m. she was quieter, her pulse perceptible, temperature 99 F., and at 11 p. m. she was resting fairly well.

On September 21 she was crying, had slept some during the night, and had passed a normal stool. At 8 a. m. her temperature was 99F., and pulse stronger. At noon it was still stronger, and she took nourishment better. At 5 p. m. I ordered milk from the Walker-Gordon laboratory, as she would not nurse.

September 22, at 8 a. m., reports showed she did not rest well during the night, and refused all nourishment. At 4 p. m. she nursed for the first time since she had the hemorrhage.

On September 23 reports showed that she slept well during the night and was nursing well.

From this time on the baby continued to improve, though very weak and thin for several weeks. In about one month she was doing as well as though nothing had happened, and is now healthy. The umbilical cord did not separate until October 6, eighteen days after birth.

A great many causes have been given for this affection: infection; sepsis; hereditary syphilis; tuberculosis; hemophilia; purpura hemorrhagica; fatty degeneration of the fetus; plethora; general feeble state; atelectasis; cyanosis; asphyxia; tardy establishment of the respiratory and circulatory functions; congenital malformations of the heart; enlargement of liver and spleen; acute infectious disease, as smallpox, measles, etc.; change in the blood or blood-vessels; too speedy

*Presented to the Section on Diseases of Children, at the Fifty-first Annual Meeting of the American Medical Association, held at Atlantic City, N. J., June 5-8, 1900.

ligature of the cord; slow and difficult labor; external violence; irritant matter in the gastrointestinal canal, as worms or retained meconium; ulcers on the gastrointestinal surface, and hyperemia of the mucous membrane of the alimentary tract. Of all these causes but few were present in my case: asphyxia, tardy establishment of the respiratory and circulatory functions, and slow and difficult labor.

It is probable that one or more of the above etiologic factors are present in most of the cases and may possibly act as exciting causes, but these are so often present in thousands of births, in which no hemorrhage is seen, that it is difficult to assign one cause for many cases.

The fact that so many more of these cases occur in institutions than in private practice would point to an infectious nature. Drs. Kilham and Marcelis[1] report ten cases of hemorrhagic disease in the new-born as occurring in 54 births between Feb. 19 and May 11, 1897, in a New York Maternity, or 18 per cent., of which 5 had hemorrhage from the bowels and 2 from the mouth. The ward was entirely free from sepsis, there was no apparent cause for the hemorrhage, and the cases followed one another in quick succession, often overlapping, and ceased when proper measures were taken for isolation. Dr. Townsend[2] reports, in 6700 births in the Boston Lying-in-Hospital, 45 cases, or .67 per cent.; while in the out-patient department there were but 4 cases, or .1 per cent. This comparative prevalence in the hospital has no connection with septicemia, as the disease is practically eradicated from that institution, but occurs independently of it, just as thrush may get a foothold and flourish in a hospital, although it is not common in private practice.

Drs. Kilham and Marcelis made bacteriologic examinations in two of their cases and found an organism suggesting the diplococcus of pneumonia and probably belonging to the pneumococcus group. Gaertner found, in two cases, a short bacillus much like the bacterium coli commune. This bacillus, injected into the peritoneal cavity of young animals, chiefly dogs a few days old, produced a disease accompanied by hemorrhages resembling that seen in the newly born. (Holt.) Other observers have found various organisms: the streptococcus alone or associated with an organism having all the characters of the diplococcus of pneumonia; bacillus pyocyaneus alone or associated with the staphylococcus; bacillus lactis aerogenes; an organism with the characters of Friedlaender's bacillus. At present the results of bacteriologic examinations are very much confused, but they all seem to point to a specific cause.

The very definite course of this disease, soon ending in death or complete recovery; its self-limited nature; its greater prevalence in institutions; the elevated temperature, as in my case; the fact that it is in most cases a general and not a local disease, not limited to one spot, and the bacteriologic findings, all point to its infectious nature and suggest its relationship to the acute infectious diseases.

Hereditary syphilis is present in a small proportion of cases. Sepsis seems to be associated with a large number. Hemophilia is a different disease from this. It is an inherited one whose hemorrhagic tendency continues as long as the patient lives. Bleeding in hemophilia rarely occurs before the end of the first year of life. In hemorrhagic disease the sexes are about equally represented; while in hemophilia the proportion of females is 13 to 1. Circumcision has been done within a few days after recovery from the bleeding of gastrointestinal disease without any unusual hemorrhage.

Holt says that there is a class of cases in which the hemorrhages are not associated with any known process. These are characterized by the fact that they are spontaneous in origin, having no connection with delivery. They are most often from the umbilicus, the mucous membrane of the stomach and intestines, or beneath the skin, but they may be from almost any mucous surface or into any organ of the body. These hemorrhages probably arise from changes in the blood or in the blood-vessels, or in both, whereby the vessels are no longer able to hold their contents. The predisposing causes of bleeding in early life must be emphasized, viz: the fragile condition of the blood-vessels and the great changes taking place soon after birth in the circulation and in the blood itself.

Jacobi[3] says that the round perforating ulcer in children is more frequently met with in the newly-born and quite young than in advanced childhood. The causes of gastric and duodenal ulcers are very numerous. Some enumerate among these arterial anemia, others venous hyperemia or stasis in the hepatic vessels; or circumscribed hemorrhages into the tissue. Others assign thrombosis as the cause; others emboli, or lessened alkalinity of the blood, or hemoglobinuria. In this way hemorrhages and ulcers frequently go hand in hand, and often are the cause of each other. In the newly born, hemorrhages from the digestive tract are known by the name of melena. In the majority of cases melena occurs from localized and circumscribed ulcers, or from rupture of blood-vessels between the first and third day of life, rarely after the first week. It is caused by the sudden changes in the circulation occurring at and after birth. At that time, and from the same causes, is hyperemia of the mucous membrane found extensively, even in healthy babies. Hyperemia results in hemorrhage very much more frequently in the newly-born and in infants, because of the thinness and permeability of the walls of the blood-vessels.

This is a very serious disease. Probably one-half of the patients die. The mortality, according to a number of writers, varies from 35 to 79 per cent. Townsend collected 709 cases showing a mortality of the latter figure. The prognosis in an individual case depends on the physical condition of the child, on its ability to take nourishment, and on the amount of blood lost. That the most desperate cases may recover is shown by mine, seen by several medical friends, none of whom would venture a favorable prognosis.

Townsend says: As regards treatment, if we have in mind that the disease is self-limited, we will not give up the case as hopeless, but will do everything to tide it over the critical period. Perfect quiet, most careful and persistent feeding from spoon or dropper, with milk drawn from the mother or wet-nurse, or careful artificial diet, may be all that is necessary to prevent a fatal issue. Warmth in the stage of collapse and alcoholic stimulants even in the stage of bleeding seem to be beneficial.

Holt says that the administration of drugs internally for the control of hemorrhage is entirely without influence on the disease.

Others recommend cold drinks, ice, ergotin, gallic acid, perchlorid of iron. If collapse is present, inhalations of oxygen, counterirritation, hypodermoclysis of normal salt solution are of use. Some recommend large rectal

[1] Arch. Ped., March, 1899. [2] Ibid., August, 1894.

[3] Intestinal Diseases of Infancy and Childhood, pp. 151-2.

injections of astringent solutions, with the idea of reaching the site of the bleeding. This, however, is scarcely practicable.

The most recent mode of treatment is the use of a solution of gelatin, both by the mouth and by the rectum, with a favorable result in one case. My use of morphia hypodermically seemed to do more good than anything else. I looked upon this case as somewhat akin to the abdominal hemorrhage of typhoid fever, in which I use morphia similarly.

Discussion will appear next week.

CHRONIC INFLAMMATION OF THE TEAR PASSAGES.*

WILLIS O. NANCE, M.D.

Assistant Surgeon Illinois Charitable Eye and Ear Infirmary; Professor of Ophthalmology, Chicago Clinical School.

CHICAGO.

Lachrymal disease constitutes from 2 to 3 per cent. of all eye cases. Of 95,596 patients treated in the eye department of the Illinois Charitable Eye and Ear Infirmary between the years 1859 and 1898, 2147, or about 2.25 per cent., suffered from disturbance of the tear-conducting apparatus. Females seem more liable to be affected than do males, in the proportion of at least 2 to 1. This statement seems somewhat strange from the fact that the latter suffer much more from atmospheric exposure, undoubtedly an indirect etiological factor of considerable importance. Fuchs explains this predisposition on the part of women to the "zealous use which the female makes of the lachrymal apparatus." We find the disease occurring in all ages. C. W. Hawley[1] has recently reported five cases of mucocele in the new-born, and clinical experience demonstrates that infants are frequently sufferers from lachrymal disease.

Any obstacle to the performance of the physiological function of the ocular drainage apparatus may bring about the condition commonly known as "watery eye." The normal overflow of tears may be impeded by malposition of the lids, stenosis or occlusion of the punctum, canaliculus, or nasal duct.

In order to thoroughly appreciate the pathologic conditions present, some knowledge of the anatomy and physiology of the parts is necessary. The conducting apparatus begins with two minute orifices, the puncta lachrymalia, situated on the free borders of the lids, and lying in contact with the eyeball, about two lines from the inner canthus. These openings lead into minute canals, the canaliculi, which pass inward and empty into a reservoir, ovoid in shape, the lachrymal sac. The dilated lower extremity of this sac forms the upper part of the nasal duct, which extends downward to its exit in the inferior meatus of the nose, the membranous walls forming valve-like folds at close intervals. Anatomically, there exists an intimate relationship between the lining membrane of the nasal duct and that of the turbinate bodies of the nose, this condition being of importance in view of the statement to be made later on concerning the etiology of dacryocystitis.

The normal function of lachrymal conduction is vested in a delicate mechanism in which the act of winking, capillary attraction of the canaliculi, muscular contraction of the sac, and valvular suction of the nasal duct undoubtedly play important parts.

The lachrymal sac is subject to both acute and chronic inflammatory attacks; the one occurring with all the usual symptoms of suppurative disorganization, the other, a sequel of an acute attack of severe inflammation, or often a quiescent inflammatory condition without previous subjective manifestations. The patient complains of a flowing of tears over the cheek. The eye is said to be "watery," and at the least exposure to wind or dust, fairly "swims" in tears. The vision is more or less interfered with, a frequent wiping of the eye is necessary to bring about a clear image. There may be present a blepharitis or an eczematous excoriation on the cheek in the region of the inner canthus, the result of irritation from the continuous overflow. There is generally present a distension of the tissue over the lachrymal sac, which may or may not have received the notice of the patient. The more observant will have discovered that pressure in this locality has caused a flow of viscid matter to enter the eye, or in exceptional cases to flow into the nostril. In a minority of cases, where there has not been sufficient retention of fluid in the lachrymal sac to distend the walls, mucocele may not be present.

The question often arises in a case presenting manifestations of epiphora, whether the excess of tears does not arise from some other cause than that of interference with the normal outflow. We all know that exposure, at times, to the elements, offending particles of dust, obnoxious gases, refractive asthenopia, photophobia from inflammatory conditions of the eye, atony of the muscles of the lower lid without noticeable malposition of the punctum, senility, violent outbursts of emotion, sneezing and vomiting, may cause an overflow of lachrymal secretion. In a suspected case, then, we have two methods to aid us in a clear determination of the case: 1. In a case of lachrymal blennorrhea, on making direct pressure over the lachrymal sac, the swelling will be felt to give way under the manipulation, and in most cases the viscous discharge already spoken of will be seen to exude from one or both the puncta on the margins of the lids. 2. The forcing of fluid through the passages into the nose will be found to be exceedingly difficult in chronic inflammation of the tear sac, the swollen and thickened walls or strictured lumen of the duct preventing free patency. Besides, a careful examination of the lids and eyeball for inflammatory manifestations and a thorough research into the refractive condition of the eye will, in many cases, tend to clear up any doubt concerning this symptom.

Inflammation of the lachrymal sac is, in most cases, undoubtedly an extension of a similar process from the nasal mucous membrane. The similarity of anatomical construction between the lining membrane of the nose and the nasolachrymal duct renders this extension easy of consummation. One would naturally expect, also, an extension of inflammatory process from the other end of the lachrymal tube, from the conjunctival surface as well, but it seems that this source of infection does not play an important part. In proof of this statement, it may be said that we very rarely encounter dacryocystitis as a complication of gonorrheal conjunctivitis or other severe ocular inflammation. On the other hand, it must not be forgotten that the conjunctiva and cornea are extremely susceptible to infection from perverse lachrymal discharge, especially if there be present an abrasion of the tissues. This matter is of extreme import to the surgeon, who should undertake no operative procedure on an eye thus exposed without at first removing or modifying the conditions present, and to the patient, whose chief danger from dacryocystitis lies in

* Read before the Illinois State Medical Society, held at Springfield May 15-17, 1900.

1 THE JOURNAL, 1900, Vol. xxxiv, p. 401.

the extreme susceptibility of the wounded ocular tissues to infection.

Patients suffering from lachrymal disease have been, as a rule, subject to frequent attacks of coryza, and on examination will be found to present abnormal nasal processes. The extension of the inflammation has, by swelling and infiltration, narrowed the normal lumen of the duct, and in this way has formed an obstacle to the normal outflow of the secretion. The tears, conveying the micro-organisms which exist more or less constantly in the conjunctival folds, and which under physiological conditions are carried away to the nasal fossæ, are retained in the lachrymal sac, where exists an excellent chamber for the culture of bacterial organisms. The impediment to the outflow of retained secretion varies, in different cases, from a simple occlusion from swollen membrane and inspissated mucus to a true stricture of cicatricial formation. The latter condition, I contend, exists in not more than one-fourth of all cases, and where it is present is, in many instances, the result of faulty technique on the part of the surgeon in the passing of probes.

Chronic inflammation of the lachrymal sac sometimes occurs as a sequel of smallpox, measles and scarlet fever, exanthemata which present symptoms of nasal inflammation and irritation. Syphilis, by its necrotic inroads of the bony canal, may bring about an attack of dacryocystitis by mechanical obstruction of the passages.

The treatment of chronic inflammation of the lachrymal sac and nasal duct should be directed, 1, toward the removal of pathological processes and malformations of the nasal chamber, instrumental in the causation of the trouble in the vast majority of cases; 2, toward the restoration of the patency of the passages, with as little damage as is possible to the normal anatomical relations; 3, toward the alleviation of all factors conducive to the production of ocular irritation, reflex or otherwise, and 4, toward the proper correction of any existent dyscrasia.

The nasal fossæ should in all cases receive careful attention. Any abnormalities of the turbinate bodies should be remedied, especial consideration being paid to the immediate locality of the nasal duct outlet. The character of the nasal discharge should be modified by the frequent and thorough application of some alkaline spray, of which Dobell's solution is probably as efficacious as any.

The restoration of the normal caliber of the passages is a matter of the greatest importance, and the method in which this may be accomplished and drainage apparatus once more be made to perform its physiological function, is a problem on which ophthalmologists hold widely different opinions. Some surgeons slit one of the canaliculi and pass probes in every case, as soon as the diagnosis of tear-duct inflammation is made. Some incise the lower canaliculus exclusively, others the upper, and some, again, both. Some advise rapid dilatation by probes, others gradual dilatation. Some use probes of the minimum caliber, and increase only to a very moderate size; others use nothing smaller than a No. 8 Bowman, and frequently pass a No. 16 Theobald. Some, after slitting the canaliculus, insert a style; others, a canula. The passage of a probe is supplemented by some by a current of electricity; others have suggested the use of a medicated gelatine bougie as a substitute for the metal probe.

This wide variance of opinion regarding the management of these cases only tends to show with what degree of nebulosity we recognize the pathological conditions as they exist, and how empirical, to say the least, is our accepted mode of treatment.

In the first place, let us carefully examine and study each case as it presents itself, and determine as to the pathological conditions present. The dilatation of the punctum and the injection of a simple antiseptic, accompanied by scrupulous attention to the nasal chamber as before suggested, will in a certain number of cases suffice to relieve the constricted lumen of the passages and restore physiological patency. In those cases in which pressure on the sac causes a purulent discharge to exude, or the method just mentioned persistently carried out for several weeks, does not bring about an amelioration of the symptoms, one of the canaliculi should be slit up and a probe passed. The probes devised by Bowman are in general use. The question as to which canaliculus, the upper or lower, should be operated on does not seem to me to be a matter of much importance. Two points, however, should be borne in mind in performing this little operation: 1, make the incision entirely on the conjunctival surface of the lid by inclining the cutting edge of the knife slightly toward the eyeball; 2, slit up as little of the canal as is possible to allow of the passage of the probe. One-third of the length of the canaliculus is generally sufficient. By observing these simple rules the normal capillary or suction function of the canal, so necessary to retain, will be maintained.

One of the smallest probes should be immediately passed and repassed daily for two or three days, in order that the edges of the wound may not heal; after this short period, the intervals may be lengthened from two to three times a week to once a week, or even longer. The introduction of probes larger than a No. 8 Bowman in cases where there exists no true stricture of the duct seems to me to be wholly unnecessary in the average case, and to be extremely liable to injure the membranous walls of the passages, produce further thickening and cicatricial formation, and destroy the delicate valve-like folds of the nasal duct, even when exceptional care has been displayed in their use. In this connection it may be well to emphasize the importance of gentleness and precision in the passing of probes. One can not exercise too much care in their manipulation lest he aggravate the conditions already existing. A little patience and perseverence will oftentimes prevent harmful sequelæ. Another point to bear in mind is the importance of passing the probe the entire length of the nasal duct, for, as is well known, a common location of occlusion or stricture is at or near the duct exit in the inferior meatus. It is well, when in doubt, to examine the nasal chamber by reflected light, and with a fine applicator feel for the probe in position. The introduction of a No. 6 Bowman probe—having a caliber of 1.5 millimeters—will often give some idea as to the nature of the constriction present. If such a probe is evenly gripped and the impression conveyed that the walls are smooth, even though considerable steady pressure be required for introduction, we may conclude that there exists no true cicatricial stricture. Where the diagnosis of cicatricial stricture is made, the larger probes, or those of Theobald, may be employed. As before stated, however, true stricture of the nasal duct occurs in but comparatively few cases, consequently the passage of the Bowman series will, in most cases, suffice.

Probes should be left in position for twenty minutes, withdrawn and the passage flushed with some antiseptic

or astringent solution by means of Anel's syringe. The saturated solution of boric acid is commonly used for this purpose. During the past year I have employed a 5 per cent. solution of argonin as an injection, and am led to believe it to be more efficacious than the boric or other solutions formerly used.

The home treatment of these cases forms a valuable adjunct to their successful management. The patient, or preferably an intimate associate, should be instructed in the method suggested by Gould, of alternate pressure and relaxation of the lachrymal sac, the patient reclining, the eye immersed in some antiseptic solution. This manipulation should be performed several times a day, with the end in view of emptying the sac of its effete contents and forcing the solution into the passages.

Refractive errors should be carefully corrected and constitutional disturbances remedied. Exercise in the open air and cold baths are indicated in the majority of cases. In cases unable to undergo a protracted course of treatment, the lachrymal canula or style may be employed. My experience in this connection, though somewhat limited, has been disappointing, and I seldom make use of them.

The instruction of the patient, or some member of his family, in the passing of probes, has been suggested by some surgeons for those unable to continue office treatment. This procedure I cannot approve of, for the reason that the maneuver, as already stated, is an exceedingly delicate one and should not be entrusted to the inexperienced. If the sufferer be unable to carry on the combined office and home treatment for a reasonable length of time—say three or four months—the canula may be made use of until satisfactory arrangements may be made to attend regularly.

The ancient practice of sac extirpation in obstinate cases has recently been revived. It seems to me to be justifiable as a last resort in intractable cases, although one must not overlook the fact that complete obliteration precludes the possibility of natural drainage, which sometimes comes about in seemingly incurable cases when the inflammatory trouble has subsided. Preliminary to operations on the globe in lachrymal cases, obliteration is, of course, justifiable and obligatory.

100 State Street.

A FEW POINTS ON APPENDICITIS.

J. HENRY BARBAT, M.D.

SAN FRANCISCO.

Probably no other disease has brought forth such an array of literature as has been published within the past ten years on appendicitis. All classes of practitioners took a hand, and the result is an indescribable melange, which we are slowly untangling, but we are beginning to get order out of chaos. The medical man is slowly recognizing that appendicitis is a surgical disease, and no longer delays calling in the surgeon until the patient is beyond hope. Surgeons who a few years ago advocated waiting so many days in most cases are now advising operation as soon as the diagnosis is made.

The question of diagnosis is the key to the peculiar statistics which we sometimes see published by men who claim to cure all their cases without operation. All belly-aches are appendicitis; and when a patient dies from a neglected case of the true disease it is laid to the door of inflammation of the bowels, obstruction of the bowels, or idiopathic peritonitis. While we are all liable to err in our diagnoses, it is better to err on the safe side, and remove an appendix which is not diseased than to leave one in which is going to cause the death of its owner.

As our experience increases we are able to eliminate practically all the conditions which simulate appendicitis, but that is as far as we can go. It is absolutely impossible to differentiate the varieties of this disease by the symptoms present; we can occasionally, under favorable conditions, palpate the appendix with sufficient thoroughness to say positively whether it is distended or contains a calculus; but as a rule either the tenderness is too great or the abdominal wall too thick to determine with any degree of accuracy the condition of the appendix.

What then have we to rely on to make our diagnosis, and how shall we do it? The first and one of the most important diagnostic features, is the suddenness of the attack; the pain coming on with little warning and increasing rapidly, in a person otherwise apparently healthy. The locality of the pain is not diagnostic; it may be, and usually is, near the umbilicus, or it may be in the epigastrium. The next point is the nausea or vomiting; we find either one or the other present in about 90 per cent. of all cases. Constipation is the rule. Localized tenderness is found within the first few hours in practically all cases, and in 90 per cent. it is at or near McBurney's point. The diagnostic tripod consists therefore of sudden pain in the abdomen, nausea or vomiting, and localized tenderness.

The majority of mistakes are made by failing to obtain an exact history of the first few hours of the attack. If the physician is not called in until twenty-four or more hours have elapsed after the onset of the disease, and relies for a diagnosis on the symptoms which are found at that time, he will often be led astray, because it often happens that the pain and tenderness have either subsided or disappeared, and the condition does not look serious. This is very deceptive, as we often find in these cases that either perforation or gangrene has taken place, and nothing but an immediate operation will save life.

We meet with a number of cases in people otherwise healthy, in which deep pressure over the appendix causes pain, indicating either a slight catarrhal condition or the existence of adhesions. The patients will have occasional attacks of increased pain and tenderness, especially if they become constipated. Operation is indicated if the pain and tenderness are sufficient to prevent the individual from working, or prevent him from enjoying life comfortably. We can differentiate these cases from most of the other varieties by the fact that we do not find the exacerbations coming on suddenly, but rather a progressive increase of pain beginning indefinitely.

One very important consideration is the fact that the temperature and pulse at the beginning of an attack must not be taken into consideration in determining the question of operation. I mention this because several have stated that they depended to a certain extent on the temperature and pulse in guiding them. The fallacy of this is shown by the following cases:

CASE 1.—W. B.; history of probable attack six months previously. He was awakened one morning at 3 a. m. with severe pain in abdomen, and vomited. I saw the patient an hour later and found extreme tenderness over McBurney's point, temperature and pulse normal. Operation ten hours later; appendix four inches long, with distal three inches filled with pus and becoming gangrenous; a complete obstruction prevented the pus from getting into the cecum.

Case 2.—H. B., had attack eight and a half years previously with formation of subphrenic abscess. Sudden pain at 4 p. m. with slight nausea, no increase in pulse or temperature. Pain and tenderness increasing; patient was operated on at 8 p. m. Appendix distended and contained five appendoliths; the tip was imbedded for three-fourth of an inch in tough cicatricial tissue, the result of the previous attack.

Case 3.—Patient came to office forty-eight hours after the first pain; had had nausea and vomiting and felt very sick. When I saw him the pulse and temperature were normal and the tenderness was not very great; but I was able to find some thickening at the site of the appendix, and advised operation. Next day the patient stated that he was entirely free from pain and tenderness and felt all right, but I still advised operation on account of the initial symptoms and the fact that I could feel something hard at the site of the appendix. Operated seventy-two hours after the beginning of the attack, and found the appendix extremely large and containing a very large appendolith. The mucosa and submucosa were sloughed at the point of the junction of the appendix and cecum, leaving nothing but the peritoneum to hold the appendix in place.

These cases show clearly that we can not in any case determine the pathology by the physical signs, or the subjective symptoms; for we find the most desperate pathologic conditions with the mildest symptoms, and vice versa; the classical symptoms well marked with but slight pathology. This can be easily understood, when we consider the cause of the various manifestations. Pain is produced by pressure on the sensory nerves, and therefore a congestion will produce more pain than a complete gangrene, and the bursting of an appendix will relieve the pain that was caused by its distension. The moment the pressure ceases, or the nerves are destroyed the pain and tenderness disappear.

The nausea is reflex and may be marked in the mildest and almost absent in the worst case. The rise of temperature and increased pulse-rate depend on the absorption of ptomains by the system, and it is possible to have a complete gangrene of the appendix without having sufficient poison absorbed to cause a rise of temperature; again we may have a slight erosion of the mucosa allowing a free absorption of the products of decomposition of the bowel, running the temperature up as high as 104 F. The pulse varies with the nervous system of the individual and therefore can not be taken as a guide in determining the question of operation.

We are left, therefore, without any reliable means of determining the condition of the appendix in any given case without opening the abdomen, and we consider that the mortality after operations which have been performed within the first forty-eight hours is practically nil. We are certainly justified in advising immediate operation in all cases in which the classical signs were manifested within the first few hours.

Much depends on the method of operating. Except when pus is undoubtedly present, our primary incision should be small, just sufficient to admit one or two fingers, and the conditions ascertained by careful exploration. If recent adhesions are found, the incision had better be enlarged sufficiently to be able to see every step of the operation, as these cases are the ones in which the operation may prove dangerous in inexperienced hands. From a comparatively trivial operation, which is necessary in perfectly clean cases, we come to an operation which taxes the skill of the most expert abdominal surgeon, and which may require the resection of a portion of the bowel.

My conclusions are as follows:

1. That over 90 per cent. of cases of true appendicitis which are not operated on have recurrences.

2. That we should operate on all cases of chronic recurrent appendicitis, if possible between attacks.

3. That in practically all cases which die after operation we find at least forty-eight hours between the onset of the attack and the time of operation, therefore it is reasonable to assume that if these cases had been operated upon inside of the forty-eight hours the patients would have been cured.

4. That as soon as a diagnosis of acute appendicitis is made, operate immediately.

5. Pulse and temperature are not to be taken into consideration in making a diagnosis of appendicitis.

6. In acute cases the diagnosis must be based on the symptoms which were manifested during the first three or four hours.

803 Sutter Street.

Tearing Down Untimely Board of Health Placard.—In the case of the City of Memphis vs. Smythe, which was commenced by the issuance of a warrant for the arrest of the defendant for a violation of a health ordinance, the Supreme Court of Tennessee holds, to begin with, that a warrant for a fine or penalty imposed for a violation of a town ordinance is civil in character, being in the nature of an action of debt, and that consequently an appeal, after a finding of not guilty, will not be dismissed on the ground that the defendant has been once in jeopardy. The defendant in this case was a physician. The ordinance which he was charged with violating provided, under penalty by fine, that every physician should immediately report any person he might attend within the city limits sick with, or who he had reason to suspect had, diphtheria; that thereupon it should be the duty of the health officer to placard the house, with a card designating the character of the disease, and that such card should not be removed by any other than a health officer or sanitary policeman. The record in the case disclosed that, one Tuesday night, at the defendant's residence, his child was taken ill with what the defendant feared was diphtheria. The next morning he called in another physician, who, upon examination was unable to discover any symptoms of this disease, and so told the family. But notwithstanding this assurance, the defendant, still suspicious or apprehensive, after the departure of that other physician, made a telephone report to the city board of health that the child was sick with what he feared was diphtheria, adding that the other physician, who was attending the patient, did not so regard it. That (Wednesday) afternoon, that other physician called again, and repeated what he said before. Thursday afternoon, he made his last visit, when, finding the child well, or practically so, he dismissed the case. The board took no action until Friday morning, when one of its employes telephoned to the defendant that a report of the case of diphtheria at his house was required. To this the defendant replied that there was not, nor had there been, a case of that disease at his home; that his infant child had been sick, but was then entirely well. Thereafter, by order of the board, the house was placarded for diphtheria, upon discovering which the defendant tore down the placard. Then followed this action. The ordinance itself, the supreme court characterizes as a salutary one, the strict enforcement of which was essential to prevent the spread of contagious diseases. But, on the facts stated, it holds that the action of the defendant was warranted, and that he had not violated the ordinance. It says that if, on the receipt of his report on Wednesday morning, the sanitary authorities had acted by placarding the house, the ordinance would have applied. But, waiting as they did until it had been ascertained that it was not such a disease as the defendant had suspected, and the child was entirely recovered, their action, it holds, came too late. And this being so, there was no reason, the court declares, why the defendant should permit the placard to remain posted on his house, as its natural, if not necessary, effect would be to warn friends and patients alike against entry lest they be exposed to the contagion.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

61 Market Street : : Chicago, Ill.

Cable Address: "Medic, Chicago"

Subscription price: Five dollars per annum in advance

SATURDAY, OCTOBER 27, 1900.

DIFFERENTIATION IN DIABETES.

There are few diseases that have been more thoroughly studied than diabetes, and, while there has been a gradual and progressive expansion of our knowledge on this subject, the condition is still surrounded with not a little obscurity and the exact mechanism of its occurrence is not yet understood. That it is a morbid perversion of metabolism is generally agreed, as it is also that the most powerful therapeutic influence is dietetic; but we can not for the present go further than the statement that the disorder represents a defect in carbohydrate-assimilation. In a recent thoughtful paper, F. W. Pavy,[1] who has made important contributions to our knowledge on this subject, discusses some phases of differentiation in diabetes. To cases in which the sugar eliminated with the urine is derived solely from the food, he applies the designation alimentary diabetes. The carbohydrate matter of the food fails to be dealt with in the system in such a way as to be placed in a proper position for utilization, so that it appears in the blood as sugar and is thence discharged as waste material with the urine. Under normal circumstances, neither the urine nor the blood is sensibly influenced by the carbohydrate elements of the food, although the blood, like other tissues, uniformly contains a small amount of sugar.

Alimentary diabetes is attended purely and simply with the abnormal presence of dextrose in the urine, and this secretion further does not yield a color-reaction with ferric chlorid. Under other circumstances dextrose may appear in the urine, as a result not alone of defective carbohydrate assimilation, but also of abnormal proteid disintegration. In consequence of faulty metabolism, tissue-disintegration takes place, with the production of sugar, in association with other abnormal degradation products. For this latter condition Pavy proposes the designation composite diabetes. As a result of the faulty metabolism a series of products not normal to the urine appears in it, namely, beta-oxybutyric acid, diacetic acid and acetone, and the amount of these may be looked on as furnishing a measure of the extent of abnormal proteid destruction. Oxybutyric acid is, under these circumstances, found only in association with diacetic acid and acetone; and diacetic acid only in association with acetone. The beta-oxybutyric acid deflects the ray of polarized light to the left, so that the effect of its presence is to neutralize, in proportion to its amount, the deflection to the right due to dextrose. The difference between the quantitative results obtained by reduction with cupric oxid and those yielded by the polarimeter will therefore indicate the extent to which abnormal proteid disintegration is taking place. If the dextrose be fermented away by means of yeast, the levorotatory deflection noticed in the polarimeter will give the same information. The presence of diacetic acid will be indicated by the appearance of a wine-red color on addition of ferric chlorid to the urine.

The essential condition of alimentary diabetes consists in a faulty power connected with the application of the carbohydrates of the food within the system. Normally these are so utilized that no evidence of their ingestion is found in the blood or in the urine. In the presence of diabetes, however, the carbohydrates are not properly assimilated and find their way into the blood and the urine in the form of sugar. The power of assimilating carbohydrates is limited even in health, and the ingestion of an amount beyond that will be followed by glycosuria, so that the diet must be adjusted accordingly. The characteristics of alimentary diabetes consist in the control of the glycosuria by the exclusion of carbohydrates from the food and the absence of beta-oxybutyric acid and diacetic acid from the urine. To ascertain the degree of severity the assimilative power must be estimated by determining the largest amount of carbohydrates that can be taken without inducing glycosuria. Under favorable conditions it will be found that gradually increasing amounts of carbohydrate will be tolerated, and this will be indicated by continued absence of sugar from the urine, and also by loss in weight; and increase in the amount of carbohydrates to a point yet within the assimilative capacity of the organism will now neutralize the loss of weight. Alimentary diabetes is unattended with any liability to the supervention of the fatal coma that occurs in cases of composite diabetes as a result of the activity of toxic products resulting from tissue-disintegration. The intensity of the symptoms is proportionate to the amount of sugar in the system, as indicated by the quantity appearing in the urine. This will be shown by amelioration and gradual disappearance of the symptoms with the subsidence of the glycosuria when the carbohydrates are diminished or withdrawn.

The case acquires a serious aspect when the alimentary is converted into composite glycosuria. This takes place more readily in early than in late life, and in neurotic individuals, and as the result of hereditary tendencies. Under the morbid influence in operation the tissues melt down into the unexhausted products that escape as waste matter with the urine. The degree of emaciation may become extreme. The coma by which life often is terminated is the result of a true autointoxication. The nature of the intoxicant has

1. Lancet, June 16, 23 and 30, 1900.

not yet been determined with certainty, although it has been thought to be beta-amido-butyric acid.

PRIMARY ENDOTHELIAL HYPERPLASIA OF THE SPLEEN—A DEFINITE AND DISTINCT DISEASE.

Many of the diseases of the spleen and of the lymph-glands are exceedingly obscure in their nature. There are leukemia and pseudoleukemia, whose clinical picture and anatomical changes are familiar enough, but of the real nature of these processes we are wholly in the dark. The recent report by Crowder[1] of a peculiar form of chronic hyperplastic glandular tuberculosis simulating pseudoleukemia to perfection, indicates that chronic glandular hyperplasias of a pseudoleukemic type may be of a tubercular character perhaps oftener than now expected. The conditions that determine the peculiarities of this form of glandular tuberculosis, whether connected with the bacillus or with the soil, baffle all explanation at this time. The affection variously described as splenic anemia, Banti's disease or splenic pseudoleukemia is characterized by considerable enlargement of the spleen, the changes being essentially of a chronic interstitial character. That this disease is intimately connected with splenic lesions would seem to be demonstrated by the cures reported by Italian physicians to follow splenectomy; but of the essential nature and the cause of the malady nothing is known.

And now comes Bovaird[2] with the description of two remarkable instances in children of a primary enlargement of the spleen dependent on an extensive endothelial hyperplasia, judging from the histologic study of the spleen in the fatal case. The patients were sisters, the first signs of the disease appearing at the ages of 2 and 3 years, the latter dying at 13 from splenectomy. Bovaird sums up the symptomatology as follows, based on his own cases and on the reports of similar cases—mostly females—by Gaucher, Collier and others: Slow and progressive enlargement of the spleen, beginning in childhood—2d to 7th year—with a secondary enlargement of the liver and simple anemia. Softening of the gums, with oozing of the blood, epistaxis, cutaneous hemorrhages and icterus have been observed, the first being quite constant. The mechanical effects of the splenic enlargement may be the cause of pain, gastro-intestinal disturbances, dyspnea, dysuria and cramps in the legs. In Bovaird's fatal case the spleen weighed 12½ pounds, the total weight of the child being 75 pounds. The form of the spleen in general was that of the normal organ.

The clinical differentiation of cases of the type described by Bovaird from splenic anemia—Banti's disease—seems at present impossible, but the anatomic lesions of the two diseases differ. As already indicated, the splenomegaly of Gaucher and Bovaird is dependent on a marked endothelial hyperplasia which may be associated with like changes in the retroperitoneal and mesenteric lymph-nodes and the connective tissue of the liver. These alterations are well illustrated in Bovaird's drawings. On the cut surface the spleen and certain parts of the liver showed numerous firm white or yellowish-white areas corresponding to large irregular spaces filled with large cells. The areas in the liver are regarded as developing from the endothelium of the lymph-spaces and not as metastases. Iron pigment was present in large quantities in the lymph nodes and the liver. Bovaird's view that the process is not an endothelioma—Gaucher speaks of his case as an epithelioma—is supported by such authorities as Cornil and Birch-Hirschfeld. The nature of the affection—the entity of which seems established—is beyond our present ken. As yet bacteriologic studies do not seem to have been made. They are indicated whatever the results therefrom might be. The reports of cases like these are inducive to careful study of that enigmatic organ, the spleen.

1. New York Med. Jour., Sept. 15, 1900.
2. Am. Jour. of Med. Science, October, 1900.

CHANGES IN THE MOTOR GANGLION-CELLS ASSOCIATED WITH PERIPHERAL NEURITIS.

Whether or not the conception of the neuron as applied to the nervous system can be accepted without qualification in its present form, there is no doubt that it has been a great help in clarifying our physiologic and pathologic notions in this field of observation. Viewing the nerve-cell and its processes as one continuous whole, it can be readily understood how a lesion in any part of it will give rise to similar clinical manifestations. Further, as the nutrition of the cell is dependent on the integrity of the body, through its nucleus, it must be evident that the most remote part will be the most susceptible to degenerative changes. Disease of the cell will necessarily be followed by disease in its processes, but it has not been sufficiently appreciated that disease in the latter may be attended with changes in the former. It has been observed that sometimes perfect recovery takes place, while at other times cells undergo atrophy and disappear.

Evidence in confirmation of this latter fact is afforded by the results of a microscopic study lately made by Hunter[1] of the motor ganglion-cells, in addition to the peripheral nerves, in five cases of peripheral neuritis, four of alcoholic origin. It was found in three of the cases that, although there was but slight loss of power in some of the muscles, there was marked inflammation of the corresponding nerve. This disparity may be explained on the supposition that changes in structure precede alteration in function. In three of the cases also the motor ganglion-cells exhibited chromatolytic changes corresponding more or less closely to those found in animals following injury to peripheral nerves. In a further case the appearances, while presenting a variation from the normal, could not be decided to be either degenerative or regenerative. The changes in the former were situated about the nucleus, while in the latter the periphery itself seemed to be more affected.

1. Lancet, Aug. 25, 1900, p. 576.

In all the medial group of cells in the anterior horns were practically unaltered. In the dorsal region, where the lateral cells were fused with the medial groups, the former were quite normal, but in the cervical and lumbar enlargements the degenerative changes were most marked in the postero-lateral subgroup. In two cases the number of ganglion-cells appeared diminished. A deposition of yellow pigment was found to some extent in nearly all of the ganglion-cells, as well in those that appeared to be healthy as in those undergoing chromatolytic change, completely filling some and occupying half of the cell-plasma in the majority. This pigmentation takes place at the expense of the Nissl bodies, causing fragmentation of the chromatic granules. It is thus a variety of chromatolysis, and if the chromatin-granules represent the functional potentiality of the cell, either in form of nutrition or as energy, or both, the destruction of the granules must be looked on as a degenerative change. This is attended with a corresponding alteration in the vessels, in the walls of the smaller of which colloid degeneration was found throughout the nervous system in all of the five cases examined.

As a result of the foregoing observations, it may be concluded that the presence in the blood of toxic substances capable of exerting a deleterious influence on the peripheral nerves affects not alone the neuraxon, but all parts of the neuron.

MEDICAL INSPECTION OF SCHOOLS.

Last January the medical inspection of school children was put in operation by the school board of Chicago. While it proved satisfactory, certain politicians conceived the idea that the few thousand dollars annually expended in this direction could be used for a better purpose—better for the politician. Accordingly, a feeling was created against the employment of physicians as inspectors, and for a time it seemed as if the efforts of these would-be economists would succeed. But recently most definite results have been seen, and several instances have occurred wherein timely discovery of contagious disease in the schools and quick isolation prevented an epidemic. Most of the newspapers have favored the work from the first and have defended the medical inspectors in the efforts to prevent epidemics among the school children. The Chicago *Times-Herald* of October 22 editorially says:

The record of the work accomplished by the medical inspectors in preventing the spread of contagious diseases in the Chicago public schools should have greater weight in determining the action of the board with reference to continuance of the system than any arguments that may be advanced along the line of retrenchment or economy. The value of the work to the whole community should also overweigh any objections from parents who may have suffered some personal inconvenience from the inspection. A statement of the work accomplished by the medical inspectors shows that during three and a half months of the last school year 76,000 examinations were made and 4539 cases of contagious disease were discovered and excluded from the schools. Since September 17 of the present year 7249 examinations have been made and 510 contagious cases have been excluded. The argument of economy can not have much force against such a showing of preventive efficiency as this. If the medical inspection system has kept the schools from spreading epidemics it is worth many hundred times the cost of its maintenance. Indeed it would be difficult to calculate the money value of such a service. The fact is the medical inspection system should not be disturbed under any pretext whatever. Its cost is trifling compared to the benefits that accrue to the community through the inspection. It would be a very short-sighted policy to cut off this safeguard against epidemics in the schools on the score of economy, while large sums are being expended for the non-essentials of a common school education. Medical inspection in the public schools of a city of this size is absolutely essential as a measure of public safety.

There can be no doubt whatever that, as at present managed, the close intelligent watching of the physical condition of children in the crowded school-buildings of a large city will be a power in preventing epidemics. It is shutting the door before, not after, the horse has escaped; the ounce of prevention rather than the pound of cure.

PHYSICIANS NOT LIABLE WHEN THEY ACT IN GOOD FAITH.

The Supreme Court of Massachusetts, in full bench, has given out a decision that is of interest to medical men. It holds that physicians under the Massachusetts statutes are not liable for negligence in erroneously certifying a person insane or inebriate, provided they do so in good faith and without malice. Even if their examination was a careless one their action was not the proximate cause of the commitment, as a judge must, under the statutes, determine that; and, secondly, they should, in accordance with public policy, be like other witnesses, considered privileged and protected against liability as long as they act in good faith and without malice. The opinion was a majority one, but, while not unanimous, it is sufficient to protect Massachusetts physicians from vindictive damage-suits and may be a valuable legal precedent elsewhere.

PHYSICIANS AND THE HALL OF FAME.

In our last issue, notice was taken of the omission of any medical names in the list of those selected for the so-called Hall of Fame. As there are but two medical men on the jury of award, it is quite possible our profession, commanding thus only 2 per cent. of votes, will scarcely have a fair show even in a future election. It has been suggested that an expression of the general consensus of opinion of the medical profession might have some influence, and it appears to be a good one. If for example the AMERICAN MEDICAL ASSOCIATION would pass a resolution naming certain ones, in its opinion, worthy of the honor, its action might have weight, even with the laymen on the jury. The suggestion is a practical one and worthy of consideration. It would be no honor to the Hall of Fame if worthy members of a profession which has done much for humanity, were willfully or even ignorantly omitted from its rolls.

V.3
190

JUDICIAL ARROGANCE AND IGNORANCE.

The judge, in a recent noted trial in which the accused was reported ill, is said to have given out, among other remarkable utterances, the following: "I could tell nothing by going to see the defendant as to his condition, but I do not want his physician or any other physician to fill him full of opiates and keep him in that condition, and that is a matter which must be looked after." This is an expression of opinion after an admission of ignorance, and a very injudicial slur as to the integrity of members of our profession. One thing is certain, no honorable and self-respecting physician would let a judge dictate to him in matters altogether out of the judicial sphere; prescriptions and treatment of the sick are not within the jurisdiction of the court. "In the sick room," as the Louisville *Post* remarks, "the physician is supreme," and if not he should be, judges to the contrary notwithstanding. Even a man accused of crime has rights as a patient and a human being beyond the jurisdiction of the court.

DR. JOHN CONTEE FAIRFAX.

In a recent issue we gave a three-line notice of the death of a member of the medical profession whose decease has been made the subject of half-column editorial notices in our two leading British contemporaries. Dr. John Contée Fairfax was in this country simply an American citizen, than which there is no higher rank; though not a British subject, in Great Britain he was officially recognized as sharing alone with Lord Lister the honor of membership both in the medical profession and the British peerage. This fact is noteworthy, as well as that of his descent from the parliamentary General Fairfax of that epoch of English history most familiarly known to us as "Cromwell's times," and from the Lord Fairfax who was Washington's friend and early patron. Dr. Fairfax appears to have been a very estimable gentleman, and while more of a landed proprietor than an active medical practitioner, the only title he cared to go by was that of Doctor, acquired as a graduate of the University of Pennsylvania. It is worth noting also in this connection that the history of the Fairfax family is said to be the foundation on which Thackeray built his celebrated novel of "The Virginians."

OBJECTIONABLE DRUGGISTS' CIRCULARS ABROAD.

The *British Medical Journal* states that English practitioners are seriously annoyed by objectionable pamphlets mailed to them by American drug firms, and that in the case of one particularly disgusting instance the postal authorities of the two countries have been called on to intervene. It very properly requests, however, that any of its readers sending these objectionable pamphlets with their complaints should do so in the original wrappers, as it has a suspicion that some of the pamphlets are really posted in London. It is not pleasant to hear that American druggists send disreputable literature abroad, and we trust that what they send is bad only in a medico-ethical point of view. The American postal laws are rigid as to the transmission of immoral publications through the mail; it would be a simple matter to call the attention of the authorities to any such emanating from this side of the Atlantic and would speedily put an end to their circulation. It will possibly be found that the majority of such received in Great Britain also originated there; the fact that they contained testimonials from persons holding British qualifications suggests that this probably is the case. We have British-labeled frauds in this country; it is quite likely they have their counterparts there.

AN UNAPPRECIATED JOKE.

Some time ago a Denver daily paper made some comments on what was either an abnormal temporary condition or a gross error of statistics in regard to masculine mortality in the state of Colorado. THE JOURNAL editorially noticed them, in what was intended as a semi-facetious way, remarking on the possibility of the Centennial state becoming in the future an "Adamless Eden" and suggesting as the only possible explanation the contiguity of Utah with its polygamous traditions of the past. It scarcely seemed probable at the time that the tone of the article would permit of its being taken seriously, but such seems to be the case. It has traveled over two continents, and though slightly disfigured is still in the ring. THE JOURNAL has in this repeated the experience of Mark Twain, who found that he could not in the most innocent and transparent way play hob with the probabilities and possibilities without some one accepting it all as gospel truth. The safest course is in all such cases to follow the example of another noted humorist, who early recognized this weakness of human intelligence and often ended his lucubrations with the commentary: "This is a goak." For the benefit of all such literally-minded individuals THE JOURNAL here expresses its opinion that there is no immediate danger of Colorado losing its male population, or reverting to conditions where, as an English contemporary naively remarks, "social conventions may have to be modified." It will endeavor to be more careful in the future, and, if necessary, will label its jokes.

NEW POINTS ON COLOR-BLINDNESS.

It has usually been held that all except about 3 or 4 per cent. of mankind possess normal color perception, that is, that they agree in seeing colors alike in the way we consider them to normally exist. It has been admitted that very slight variations might exist beyond these limits, but that they are too insignificant to require consideration. Unlike other peculiarities of vision, color-vision is esteemed as practically uniform in the mass of mankind. According to recent studies by Prof. Ogden H. Rood, whose former work on colors is well known, there is really no such uniformity, and individuals vary as much in this as they do in the other niceties of visual perception. From an editorial abstract of his work in the *Post-Graduate* for October, we learn that with the use of the Flicker photometer, a new instrument for measuring color-perception, Rood finds that no two agree in this respect, and that the variations are quite striking even in persons ordinarily considered as normal in their color-vision. Taking the average of eleven individuals selected for the experiments as the normal fig-

ure and reckoning it as 100, he found only three of them whose perception reached the average standard for red, three for violet-blue and five for green, and that the defects varied for these respective colors from 1 to nearly 20 per cent. The females varied from the standard as much as the males as regards green perception, though exceeding them as regards the other two colors. The number of cases examined in this study is small, but they were carefully selected and observed, and justify the claim of Professor Rood that no man or woman is thoroughly qualified to do color work until his or her color-vision has been tested, and apparently this will have to be done by such an apparatus as the Flicker photometer, with which he detected these variations. The question of color-blindness is one that calls for considerable study even yet, not merely for its scientific interest, but also on account of the practical points involved. Professor Rood's results will suggest some further investigation of the problems of color defect, with special reference to railway and steamship service, and may possibly lead to more perfect and satisfactory methods and standards than those now in use.

Medical News.

CALIFORNIA.

SACRAMENTO reports a death-rate for September of 16 per 1000 per annum.

LOS ANGELES reports 117 deaths during September, 25 of which were due to tuberculosis.

DR. ASA CLARK has been reappointed medical superintendent of the State Hospital for the Insane at Stockton.

DR. SAMUEL O. L. POTTER has resigned from the board of trustees and from the chair of theory and practice of medicine and clinical medicine in the College of Physicians and Surgeons of San Francisco.

THE MERRITT HOSPITAL, Oakland, will now be built. The Supreme Court of the United States has sustained the decision of the lower court and the $500,000 devised by Mrs. Catherine M. Garcelon for this purpose is thus made available.

THE STUDENT GUILD of Stanford University has funds in hand and will build a hospital for the use of students of the institution. The authorities of the university will provide for the maintenance of the hospital.

DISTRICT OF COLUMBIA.

THE COMMISSIONERS of the District have appointed a commission, of which Health Officer Woodward is a member, to consider all proposals for the sale of land for the proposed municipal hospital.

MAJOR JOHN VAN R. HOFF, who was recently ordered to China as chief medical officer of the United States forces there, has been relieved from duty and ordered to San Francisco.

THE FREEDMEN'S HOSPITAL, during the fiscal year, treated 8744 patients in the wards and dispensary. The percentage of mortality was 6.37. During the year 634 operations were performed, with a death-rate of 1.1 per cent.

THE BOARD OF MEDICAL EXAMINERS of the District reports that during the year ended June 30, 1900, 95 applications for license to practice were received. Of these, 22.92 per cent. failed. Licenses for midwives were applied for in nine cases and a certificate issued in each case. It asks for a suitable compensation for its members, stating that the average amount received by members of the board has been only $22.84 for the regulars, $1.76 for the homeopaths and nothing for the eclectics.

ILLINOIS.

THE SPRINGFIELD BOARD OF HEALTH has decided to ask the city council to allow an appropriation sufficient for the erection of an isolation hospital, for which there is urgent need in the city.

ORGANIZATION IN ILLINOIS.

THE COMMITTEE ON MEDICAL LEGISLATION appointed by the Illinois State Medical Society has issued a circular-letter, from which we quote a part: From our correspondence with similar committees in other states and from action taken at the last meeting of the AMERICAN MEDICAL ASSOCIATION, we believe that there is a general awakening of the profession to the necessity for more active and harmonious work. The New York State Medical Association has been recently entirely reorganized on what is known as the Connecticut plan. This plan, in brief, makes membership in the local society include membership in the state society. The fees are all paid to the local society, thus the local society is made the basis of the whole organization of the state. We believe this to be the correct principle of organization. Your committee is thoroughly convinced that if Illinois is to maintain its place in the first rank we must immediately improve our medical organization. Instead of having a state society which only embraces a part of the local societies of the state and only a few hundred of the many thousand regular practitioners, we must effect an organization which will practically embrace all our regular practitioners. We are now addressing every member of the state society on this point and asking them for suggestions and assistance in changing the present conditions. Why is it that the majority of the regular practitioners in the state have not allied themselves with the state society? The committee sees plainly that they will be unable to secure or maintain the most desirable legislative measures without a more complete organization behind them. Among the questions which are demanding solution in our state we would suggest the following: A thorough organization of city, county and state boards of health with proper relations to each other; more adequate sanitary laws, especially those relating to schools, manufactories and quarantine; to secure legislation to protect against tuberculosis and other preventable diseases; to protect against vicious legislation, for example, antivivisection and antivaccination; to protect from blackmailing, and to protect against unjust malpractice suits; to secure proper recognition of expert testimony; to protect the sick from quacks and charlatans; to protect and improve the medical-practice act and to secure a special board of medical examiners, aside from the board of health; to secure proper regulations for the protection of drinking-waters, and in fact to aid in securing just and impartial legislation whenever and wherever needed; to secure equitable medical laws throughout the United States, with some practical form of reciprocity between states; to secure the appointment of reputable and honorable medical men wherever public services of physicians are required throughout the state. These and many other questions are demanding the attention of the profession. We should be thoroughly alive to their importance and realize that the only way to secure any needed enactments or suitable appointments is through harmonious organization of our profession. We must all be willing to submit to the will of the majority. We have all, no doubt, been chagrined to hear members of the legislature say that the only thing which stands in the way of securing desirable medical legislation is lack of harmony in the profession. We should remove the cause for this now just criticism. . . . We are directed by the state society to organize the profession along these lines, and hope to have your assistance in getting in touch with the public-spirited physicians of your locality. The profession must be organized to protect the interests of the sick as well as its own interests.

Chicago.

DR. S. C. PLUMMER returned, October 23, from his summer in Europe.

THE MEDICAL INSPECTORS, on October 22, closed four rooms at the D. S. Wentworth School on account of diphtheria discovered among the scholars, and one room at the McCosh School on account of scarlet-fever.

THE ILLINOIS HOME FOR EPILEPTICS has moved to its permanent location, 3240 Lake Park avenue. The home is a charita-

ble institution and is open at all times for the reception of emergency cases.

Dr. M. N. Regent, now awaiting sentence for conspiracy to defraud, was refused a new trial by Judge Brentano, October 17.

An epidemic of matrimony is raging among Chicago physicians. Dr. A. N. J. Dolan was married to Miss Georgiana Sexton, on October 10; Dr. Charles Heller to Miss Rosie Greenhoot, October 16; Dr. Charles F. Weir to Miss Eleanor Reeves, October 18, and Dr. Louis A. Mueller to Miss Louise Wilke, October 19.

The Senn Memorial Room at St. Joseph's Hospital, which has been completely furnished by Dr. Nicholas Senn, and in addition endowed for $10,000, was formally opened October 16. During the life of the donor he will have the privilege of designating patients to occupy the room.

The banquet to be given in honor of Dr. Christian Fenger on Nov. 3, at the Auditorium Hotel, promises to be an interesting affair. Dr. C. A. L. Reed, president of the American Medical Association, will be toastmaster; Dr. W. W. Keen, Philadelphia, will make the speech, presenting the loving cup. Speeches are expected from Dr. Charles A. Wheaton, St. Paul; Dr. Charles B. Nancrede, Ann Arbor; Dr. E. S. Rickets, Cincinnati; Dr. W. H. Earles, Milwaukee; Drs. Nicholas Senn and William E. Quine, Chicago, and others. As the attendance from Milwaukee, St. Paul, Minneapolis and other nearby cities is expected to be large, the committee would like to know as nearly as possible the number that may be present. Dr. W. A. Evans, Chicago, is Chairman.

HEALTH DEPARTMENT.

Only 385 deaths were recorded in the bureau of vital statistics during the week ended October 20. This total furnishes an annual death-rate of 11.81 per 1000 of the United States census figures of population, 1,698,575—the lowest October weekly mortality-rate ever recorded in Chicago, and with one exception the lowest mortality of any week of 1900. As compared with the previous week, only deaths from pneumonia show an increase; deaths from convulsions and from violence were stationary; while deaths from the impure-water diseases, including typhoid fever, from bronchitis, heart disease, nervous diseases, cancer, diphtheria and scarlet fever show the greatest numerical reduction in the order given. During the first twenty days of the month the daily deaths averaged 58—a figure which, if maintained during the remainder of the month, would make the total October mortality only 1793, and an annual rate of less than twelve and one-half per 1000. During the twenty-five school days since September 7 the inspectors have examined 9770 ailing children in the public schools, and 694 of these were found to be suffering from diseases liable to spread to other pupils with whom they were in contact. Among these were 16 cases of diphtheria, 17 of scarlet fever, 17 of measles, 30 of whooping-cough, 36 of chicken-pox, 126 of tonsillitis, 13 of purulent sore eyes, 123 of impetigo contagiosa, 145 of pediculosis, 25 of ring-worm, 24 of eczema and 47 of other "catching" diseases. With the lowering temperature of the autumn days—necessitating the closing of doors and windows and consequent exclusion of fresh air—the number of ailing children increases, as will be seen by these figures of examinations and exclusions: Week ended September 21, ailing pupils examined, 801, excluded, 97; September 26, examined, 1939, excluded, 112; October 5, examined, 1998, excluded 168; October 19, examined, 2521, excluded, 184. Another and very potent cause of this increase is the association of the children themselves in the too-often badly ventilated class-rooms and assembly-halls of the average schoolhouse. What is known as the "school diffusion" of contagious diseases, especially diphtheria, scarlet fever, measles and whooping-cough, is now well understood and it is this that makes school inspection of so much importance and utility in the prevention of the spread of the communicable diseases of childhood. The total deaths from all causes were 385; for the corresponding week of 1899, 495. Of males, 196, and of females, 179, died. Under 1 year, 78 died; between 1 and 5 years, 45, and over 60 years, 74. The principal causes of death were: Consumption, 45; acute intestinal diseases, heart diseases and pneumonia, each 35; nervous diseases, 25; violence, 19; cancer, Bright's disease and diphtheria, each, 16; typhoid fever, 6; scarlet fever, 2, and suicide, 3.

INDIANA.

Dr. Charles H. Eckert, Marion, was thrown from his buggy and severely injured October 5.

Dr. Henry A. Fink, South Bend, had a rib broken and was otherwise badly bruised in a runaway October 8.

Dr. James W. Stewart, Logansport, was married to Miss Mamie Magee at Benton Harbor, Mich., August 16. Dr. and Mrs. Stewart have gone to Europe and expect to remain for a year.

IOWA.

Dr. R. U. Chapman, Des Moines, has returned from a tour of Europe.

Dr. Harry P. Engle and Miss Shirley Mann, both of Newton, were married October 3.

Waterloo business men have organized a hospital association and propose to establish a hospital.

The Sioux City College of Medicine held its opening exercises on October 3. Dr. George Park delivered the opening address.

The *Austin Flint Medical Journal* of Mason City will be edited and published by Dr. F. G. Murphy, Dr. T. T. Blaise retiring from the journal. The space heretofore occupied by translations will be given to original articles from the Iowa profession.

KANSAS.

Dr. A. Hudson Hepler, Fort Scott, was married to Miss Martha Jessie Polsgrove, at Fort Worth, Tex., October 10.

Dr. Russell Phillips, Leavenworth, was married to Miss Theresa Rossington, Topeka, at her home in Topeka, Oct. 10.

KENTUCKY.

Dr. Frank Lapsley, Paris, has returned from a summer tour of Europe.

Dr. Archibald H. Barkley and Miss Roberta F. Johnson, both of Lexington, were married, October 17.

Dr. Redin Kirk has returned to Louisville after service in the medical department of the army in Porto Rico and the Philippines.

The State Board of Health has issued a special illustrated circular with reference to the treatment of smallpox and precautions against it. Vaccination and revaccination is urged. It states that "within the past two and a half years this disease has prevailed more or less extensively in 81 of the 119 counties of Kentucky." "It should also be constantly borne in mind that there are no such diseases as 'elephant itch,' 'African itch,' 'army itch,' or 'Cuban itch,' and that in all of the many instances investigated by our experts, where the disease was ignorantly reported under these and other similar misleading names, they were found to be cases of genuine and unmistakable smallpox."

MARYLAND.

The Board of Medical Examiners of Maryland will hold the semi-annual examinations at the rooms of the Medical and Chirurgical Faculty, November 7, 8, 9 and 10.

The semi-annual meeting of the Medical and Chirurgical Faculty of Maryland will be held at Towson, Baltimore County, in November. One of the most important subjects to be discussed at this meeting is the proposed amalgamation of all the medical societies in Baltimore into one organization dominated by the Faculty.

Baltimore.

The deaths for the week ending October 20 were 182, an annual death-rate of 17.49 per 1000—whites, 15.61, colored, 28.66. Of these, 79 were under 5 years of age. Typhoid fever caused 3 deaths, diphtheria 5, tuberculosis 26, cancer 7, pneumonia 8, cholera infantum 10, Bright's disease 5. The births reported were 91. Of diphtheria 55 new cases were reported; of scarlet fever, 12; of typhoid fever, 28, and of whooping-cough, 3.

At the thirty-third annual Succoth Festival, held at the Hebrew Hospital, October 14, donations amounting to $2500

were received. Two hundred and sixty-four patients were admitted during the year. A large number of consumptives were treated in the new wing devoted to that disease; and 6043 patients were treated in the dispensary.

MASSACHUSETTS.

DR. FRANCIS D. DONOGHUE, Boston, was married on October 15 to Miss Marian Fiske, of Malden.

DR. HERBERT S. HAYFORD, Quincy, was married to Miss Clara L. Roe, at her home in Whitestone, L. I., October 18.

DR. JOSHUA F. LEWIS, Malden, has been appointed by the State Board of Charity, superintendent of the adult poor of the state.

THE CITY HOSPITAL is about to erect a relief station in Haymarket Square. This has been made possible by the bequest of the late Thomas T. Wyman, amounting to about $120,000. The building will be three stories high, with basement, and have an area of 120x60 feet.

MICHIGAN.

DURING SEPTEMBER, 68 cases of scarlet fever and 14 cases of typhoid fever were reported in Grand Rapids.

THE UNION BENEVOLENT HOSPITAL at Grand Rapids reports that during the fiscal year just ended, 504 patients, 253 medical and 251 surgical, were admitted. Operations were performed on 242 patients with 9 deaths.

THE STATE BOARD OF REGISTRATION in Medicine completed its first year on October 10. During this time it has examined 6000 applicants, about one-third of whom were rejected. The board recognizes only 37 colleges in America as coming up to the standard required.

THE RESIGNATION of one house-physician in the Emergency Hospital, Detroit, is said to be due to an unusual curtailment of the authority vested in that office. It is rumored that the other members of the house staff will leave the hospital soon.

THE SECRETARY of the State Board of Health believes that life and treasure might be saved the state, were a law enacted placing the determination, from time to time, of the question of what diseases are to be considered communicable, in the hands of a sanitary body which shall be charged with the duty of publishing each year a list of the diseases then known to sanitarians to be dangerous to public health and therefore required by law to be reported and restricted.

MINNESOTA.

OF THE forty-five who applied to the State Board of Medical Examiners for examination, on October 11, thirty-two were given licenses to practice.

QUINTUPLETS, all boys, weighing in the aggregate 30 pounds, were born to a woman in Marnis Home, October 12. She has been married only seven years, but had had already 11 children, all of whom came in twos or threes, with one exception.

ST. PAUL furnished one, and Minneapolis three, of the physicians cited to appear before the State Board of Medical Examiners to show cause why their licenses should not be revoked. All the cases were continued until January, 1901.

MISSOURI.

A BANQUET was tendered to Dr. I. N. Love, who is leaving St. Louis to settle in New York, on Oct. 15, by his medical friends in St. Louis, at the Southern Hotel, at which a beautiful silver loving-cup, engraved with the names of the donors and a likeness of Dr. Love, was presented to him. The formal presentation was made by Dr. G. Wiley Broome, who, in the name of the medical men of the city, expressed regrets at Dr. Love's departure and wishes for his success in his new venture and his new home. Dr. C. H. Hughes acted as toastmaster, and Dr. Love made a suitable response.

NEW HAMPSHIRE.

DR. HOWARD N. KINGSFORD, Hanover has been appointed director of general athletics at Dartmouth College, and medical director of the college football team.

THE JURY in the case of O'Toole against Dr. John Ferguson, Manchester, for damages on account of permanent injury alleged to be due to the defendant's negligence and lack of skill, has rendered a verdict for the defendant.

THE WOMAN'S HOSPITAL AID ASSOCIATION, Concord, at its annual meeting, elected the following physicians on its board of officers: Ellen A. Wallace, Manchester, vice-president and consulting physician; Julia Wallace-Russell, Concord, corresponding secretary and physician in charge; Granville P. Coun, Ferdinand A. Stillings and Charles P. Bancroft, Concord, consulting physicians and surgeons; Mary A. Danforth, Manchester, and Marion L. Bugbee, White River Junction, Vt., associate physicians, and Dr. Arthur K. Day, Concord, pathologist.

THE NEXT EXAMINATION for licenses to practice medicine in the state of New Hampshire will be held at the state house, Concord, on Dec. 11 and 12, beginning at 8 a.m. All unlicensed physicians not in practice in the state on and before March 16, 1897, must pass the examinations in order to receive a license to practice legally their profession. All information regarding the examination will be cheerfully given by the Department of Public Instruction, or by the regent of the State Boards of Medical Examiners, State Library, Concord.

NEW JERSEY.

DR. HOWARD V. MERRELL, Plainfield, was married to Miss Elizabeth Huntington Bridge, of Brooklyn, Oct. 3. Dr. and Mrs. Merrell will reside in Meadville, Pa.

IN THE SUIT brought by Peter Jones against Drs. Thomas A. Skillman and Thomas V. Meacham, New Brunswick, for wrongful commitment to Trenton insane asylum, the jury brought in a verdict against Dr. Skillman, awarding the plaintiff $50 damages, but non-suited him in the suit against Dr. Meacham.

THE CAMDEN physicians are seconding the board of health's efforts to induce the city council to establish a municipal hospital for contagious diseases. Dr. Paul N. Litchfield has presented a petition signed by fifty-six members of the profession, praying for the establishment of such an institution. Dr. Henry H. Davis, president of the board, inaugurated the movement several months ago and says the city is certainly in need of one.

NEW YORK.

THE COMMITTEE of arrangements for the 1901 meeting of the American Electro-Therapeutic Association, at Buffalo, consists of Drs. Henry R. Hopkins, William W. Potter and Julius Ullman.

THE CHILD'S HOSPITAL, Albany, has made the following changes in its visiting staff: Drs. Alvah H. Traver, Charles E. Davis and Arthur W. Elting were made attending surgeons, and Drs. Andrew MacFarlane and Henry L. K. Shaw, attending physicians.

DR. SIMON BARUCH, New York City, has been awarded a silver medal at the Paris Exposition for his efforts in behalf of the establishment of public baths.

THE CRAIG COLONY FOR EPILEPTICS.

The Board of Managers of the Craig Colony for Epileptics, at Sonyea, held its seventh annual meeting Oct. 9, and organized for the following year by re-electing Dr. Frederick Peterson, New York, president, and Mr. H. E. Brown, Mt. Morris, secretary. The medical superintendent, Dr. Wm. P. Spratling, reported 612 patients in the Colony on October 1. A gain of 234 was made during the year. The total capacity of the Colony is 840, and it is expected that it will have that number by July 1, 1901. It was decided to ask the legislature for $169,000 for new buildings and other improvements, and for $125,000 for maintenance. The superintendent called attention to the fact that 36 out of 612 of the inmates are suffering from tuberculosis, and recommended that suitable wooden barracks be constructed so that these patients might be isolated. He also called attention to the great necessity for providing better means of transportation on the Colony and advocated the construction of a trolley system, the power for which already exists at the Colony. The per capita cost for maintenance in 1898 was 300; in 1899, 216, and in 1900, $172. A resident pathologist, at $2,500 a year with maintenance, will soon be appointed, for whose use a laboratory has been built and equipped.

OHIO.

DR. EDWARD R. HENNING, West Liberty, has returned from a two years' tour of Europe.

DR. MARTIN STAMM, Fremont, has been appointed chief surgeon of the T., F. & N. Electric Railroad Company.

Dr. W. W. Seeley and family, Cincinnati, sail for Europe in November. They expect to spend the winter in Egypt.

Licenses to practice were granted on October 8 to 12 persons who took the examination of the State Board of Medical Examination and Registration at Columbus.

Two women, one a "cancer doctor," of Cincinnati, the other a specialist in "female diseases," of Sardinia, who had neglected to register, in accordance with the law of the state, were arrested at Blanchester, October 4.

Dr. Harry L. Gilchrist, Cleveland, who has been serving as an acting assistant-surgeon in the army in the Philippines, has passed the examination for admission to the medical department of the army.

The house physician of St. Vincent's Charity Hospital, Cleveland, the Sisters of Charity, Mother Superior and Ignatius F. Horstmann are defendants in a suit for $10,000 damages entered September 29 by a patient who claims that she was burned by hot-water bags while in narcosis after operation.

PENNSYLVANIA.

Mercy Hospital, Wilkesbarre, has elected Drs. Samuel M. Wolfe and Edward C. O. Wagner, members of the surgical staff.

The Lancaster General Hospital, has been offered $5000, provided the institution raises a similar amount.

The quarterly changes in the attending staff of the Johnstown Memorial Hospital are Dr. George W. Wagoner, attending surgeon, vice Dr. Alfred N. Wakefield, term expired, and Dr. William E. Matthews, attending physician, vice Dr. John C. Sheridan, term expired.

Seven cases of typhoid fever are reported from Ambler and more than 200 cases from Bolivar and the surrounding country, attributed to polluted drinking-water.

E. P. Wilbur, formerly president of the Lehigh Valley Railroad, has donated $10,000 to St. Luke's Hospital, of South Bethlehem, the income of which is to be devoted to the support of the children's ward. Samuel Thomas, Catasauqua, will build an operating ward for the hospital to cost $10,000.

The State Quarantine Board has decided to improve the facilities at Marcus Hook, near Philadelphia. Two new detention barracks will be erected for the accommodation of 400 patients. A tug boat for boarding vessels and for a floating disinfectant plant will also be built. It was decided to lift the quarantine restrictions on coast vessels from points north of St. Mary's River, Florida, from November 1 to March 31.

Philadelphia.

The Philadelphia Medical Club gave a reception October 26, in honor of Dr. Maurice H. Richardson, Boston.

The number of deaths which occurred for the week ending October 20 was 366, an increase of 28 over the previous week, and a decrease of 18 over the corresponding period of last year.

The committee recently appointed by President Potter, of Jefferson Medical College, to establish a clinical laboratory in honor of Dr. J. M. Da Costa, met October 13 and appointed a sub-committee to prepare a circular letter to be distributed setting forth the need of such an institution.

The city council committee on Charities and Correction, recommended to the finance committee an appropriation of $130,000 for the erection of new buildings as additions to the Philadelphia Hospital.

TENNESSEE.

The Memphis Hospital Medical College will begin its twenty-first annual session November 1, 1900.

The State Board of Pharmacy met in Nashville, October 17, and instructed its attorney to draw up a bill to be presented to the next legislature providing for the regulation of the selling of cocain in Tennessee. The use of this drug among the lower classes, especially negroes, has increased within the past few months at an alarming rate, and all efforts to prevent the sale of the drug have been unavailing. Nashville, Memphis, Chattanooga and Knoxville have passed ordinances providing that the drug can be purchased only on a physician's certificate, but this fails to meet the requirement. There are thousands of cocain sniffers in the state.

The State Board of Health held its semi-annual session in Nashville, October 15. Secretary Albright submitted a report in regard to the smallpox condition of the state. The report stated that since the last meeting of the board the disease had appeared in thirty-one counties. At the present time, however, the disease exists in a mild form only in six counties. In all these, with the exception of Maury, the regulations of the State Board was being observed. There are in the state at present only about twenty-five cases. In Maury county, it was stated, the board had met with a flat refusal from the county board when called on to assume charge of a case which appeared at Mount Pleasant. The reason assigned was that the county could not afford a repetition of the heavy expense incurred in stamping out the disease last year. After much discussion, a committee was appointed to go to Maury County and see if something could not be devised to prevent the spread of the disease. The general health of the state was reported as good.

CANADA.

The medical and surgical staff of the Victoria Hospital, Halifax, has resigned in a body on account of differences with the superintendent.

ONTARIO BOARD OF HEALTH.

The regular quarterly meeting of the Provincial Board of Health was held in Toronto, last week. Dr. Bryce reported that there had been in the months of June, July and August, 644 deaths, as compared with 507 for the corresponding three months in 1899, an increase of 27 per cent. A remarkable fact in this death-rate was that 264 deaths occurred in July last, or 60 per cent. more than in 1899. Dr. Bryce advises that the cities of the province increase the staff work of their health departments. Medical inspectors for schools, especially in Toronto, was also advised.

APPOINTMENT.

Dr. J. T. Halsey, of Columbia College, New York, will take charge of the Morrice Pharmacologic Laboratory at the McGill University, Montreal. This laboratory has not only been equipped by Mr. Morrice but will be supported by him for five years with annual donations, to enable the University to carry on the work of original research in this department. Dr. Halsey, after graduation, spent a year at St. Luke's Hospital. He then went to Germany, where he has spent the past five years in chemical, physiologic and pharmacologic research work in the laboratories of Frieburg, Strassburg and Marburg.

THE BIOLOGICAL STATION, ST. ANDREWS, N. B.

During the past summer, some splendid work has been accomplished in connection with the Government Marine Biologic Station at St. Andrews. During the season, the station was visited by most of the eminent scientists in Canada, who pursued special lines of research work. Amongst those doing work there were Dr. Joseph Stafford, of Toronto University; Professor Prince, of Ottawa; Dr. McCallum, of Toronto University, and Dr. A. V. Scott, of Trinity; Prof. McBride, Dr. Jackson and Mr. Simpson, of McGill; Prof. Knight and Dr. Fowler, of Queen's, Kingston, and Dr. Mackay, of Halifax. This is the second season of the station's existence, and the building has been so constructed as to lend itself easily to removal. It is likely to be removed to Prince Edward Island, next season.

FOREIGN.

Maragliano and Golgi have been elected senators, and Sanarelli deputy, to the new Italian parliament.

Koch has reached home from fifteen months of study of malaria in New Guinea, Java and adjacent islands. He is of the opinion that mosquitoes are the principal propagators of malaria in the districts he has visited.

The *Lancet* announces the election to parliament of the following medical candidates: Sir B. W. Foster, Sir M. Foster, M. A. McDonnell and F. Rutherford, in England; John Dillon, R. Ambrose, and C. K. D. Tanner, in Ireland; Sir J. Batty Tuke and R. Farquharson, in Scotland. Sir R. B. Finlay, the attorney-general, was formerly a medical practitioner.

Sir Henry Wentworth Acland, honorary physician to the Prince of Wales, and one of the most eminent medical authorities of Great Britain, died at Oxford, October 16, aged 85. He took the M.D. degree at Oxford in 1848, was made regius

professor of medicine in 1858, and accompanied the prince on his visit to America in 1860.

MR. FREDERICK TREVES, of London, one of the consulting surgeons in the South African war, has written an account of his experiences there, which will shortly appear under the title of "The Tale of a Field Hospital."

DR. SAMSON GEMMEL has been appointed professor of clinical medicine in the University of Glasgow, in place of Professor McCall Anderson. The latter takes the chair of practice of medicine.

THE PROJECT of holding an International Congress of Gynecology and Obstetrics in London in 1902 has been abandoned. A large amount of preliminary work had been done, but certain misunderstandings developed, and as a result it was thought best to drop the matter for the present.

RUSSIA is supplementing her stupendous anti-alcohol campaign mentioned in THE JOURNAL of September 1, p. 563, by enacting stringent laws against drunkenness. Every person found intoxicated on the streets or in public places is to be placed in jail for three days to two weeks, and on repetition imprisoned for three months. The correspondent of the *Lancet* comments that if this law is enforced, one-tenth of the inhabitants will be housed in jails.

THE *Ilustracion* of Madrid states that the officials have declared that the vaccin they have been using for the last two or three thousand vaccinations is defective. It did not take in any case. Persons believing themselves safe have mingled more or less with smallpox patients, and there is much consternation over the carelessness in standardizing the vaccin, which the editor denounces as criminal.

THE FRENCH courts have always upheld the principle of professional secrecy to the extreme letter of the law and consequently much surprise is expressed at a recent decision of the Toulouse court in a case involving the disposition of property. The medical attendant of the deceased was summoned as a witness and the court accepted his testimony for two reasons, first, because he had derived the information as the intimate friend of the family, and not necessarily as the physician of the deceased, and secondly, because the matter in question was widely known throughout the community.

FROM THE recently published official report of the epidemic of the plague last year in Japan, it appears that the sanitary regulations are more advanced and stringent than in the most progressive of the western nations. The notification of cholera, dysentery, typhoid and typhus fever, variola, scarlet fever, diphtheria and plague is obligatory on the physician and also on the head of each private household and public establishment, factory, theater, school, hotel, temple, etc. The owner of the house is responsible for the execution of the measures of disinfection and cleaning ordered by the physician or the sanitary officials. Patients and even well persons can be placed in isolation hospitals at the discretion of the sanitary officials. The corpse of a person dying from one of these diseases must be cremated. As Vallin recently observed, at the Academie de Médecine: "They have jumped with both feet into the midst of European civilization and adopted the latest perfected ideals of hygiene and sanitation, untrammeled by the traditions of personal liberty, etc., with which other countries have to contend." There were 69 cases of the plague in all, with 63 deaths, including 6 among physicians or members of physicians' families. A bounty of two cents was paid for rats, and in three months 35,000 had been destroyed in Kobe and Osaka, the infected cities. Plague bacilli were found on a number of rats taken in portions of the town remote from the foci of infection.

THE AUTHORITIES in Germany are partial to the sick-benefit societies and are practically ignoring the rights of the medical profession in the matter. The physicians of Ludwigshafen have founded a "Society for the Protection of Physicians' Interests," based on the principle of self-help by close organization. The weekly dues of sixteen cents are accumulating a fund to reimburse physicians who incur pecuniary loss in the struggle. Dr. Hartmann, of Leipsic, has also organized a similar association for protection of the economic interests of physicians and has issued an urgent appeal to arm for the fray. "The strike of the medical men at Remscheid and Elberfeld was merely a skirmish at the outposts; the battle is liable to be raging all along the line before long." Another important weapon for the struggle is the sympathetic co-operation of the professional and lay press, which must be secured, with an energetic stand on all questions involving the social and material interests of physicians. The *Berliner Zeitung* recently published an article entitled "The Medical Proletariat." It stated that certain sick-benefit societies paid the physicians from 25 to 60 pfennings per visit, but the Bon system only pays 60 pfennings in all, although the policy-holder is insured for seven days and the physician may have to call seven times. The three months Bon system insures for three months and pays only 1.5 to 2 marks, although the physician may have to make ninety calls.

Correspondence.

Alleged Insanity in the Army.

WASHINGTON, D. C., Oct. 22, 1900.

To the Editor:—Sensational paragraphs have appeared in the daily papers concerning the prevalence of insanity among our troops in the Philippines and these paragraphs have found their way into our medical journals and have been commented on by editorial and other writers. To clear up this matter I am authorized to state to you what Surgeon-General Sternberg has said officially on this subject. A summary of his report has been given to the press, but the summary touches lightly on the question, giving merely the absolute number of cases reported. In his full report he shows that the admission rate for the army in 1898 was 1.8 per 1000 men and in 1899, 1.78. The latter rate is higher than the mean annual rate of the decade 1888-97, which was 1.7, but it was exceeded by the rate of one of the years of the decade, the year 1892, when the rate was 1.79. He continues:

The increase in the rate of admission in 1899 over the mean rate of the decade was due to a general rise in the rates, largest in Porto Rico, 3.76 per 1000, smallest in the United States, 1.37 per 1000.

This increase was to have been expected on account of the rapidity with which recruiting was effected during 1898 and 1899. It is well understood by army medical officers that among recruits there are always more mentally unsound men than among a similar number of civilians of the same age and physical development. The most careful physical examination often fails to detect a man whose brain works irregularly, but who is sane enough to go to the recruiting office. Under the stimulus and excitement of the organization of troops many such men drift to the rendezvous and must be eliminated after muster into service. Men excitable but not actually unbalanced lose their equilibrium under conditions of stress in the field and the first two years of military life are apt to develop many such cases. Hence it was to be expected that the active recruiting of the past two years would bring into the ranks men who would increase the insanity admission rate of the army. That this increase would be found chiefly among those sent to foreign service was also to be expected. No doubt many young men separated from home and friends became the subjects of intense mental depression and their cases were properly recorded on the monthly reports of sick and wounded as cases of insanity; and as the only method affording a prospect of recovery was a return to their homes they were judiciously shipped by transport to the United States. Many such cases recovered during the trans-Pacific voyage or during their detention for observation at the General Hospital, Presidio of San Francisco, Cal., and never reached the Government Hospital for the Insane at Washington, D. C. That this is no mere supposition may be inferred from the following statement concerning the insanity cases of the army as a whole and of the Philippine army:

In the army, regulars and volunteers, during the calendar years 1898 and 1899, there were reported on the monthly reports of sick and wounded 347 cases of insanity, and 202 of these cases or 58.2 per cent., were committed to the Government Hospital for the Insane. One hundred and thirty-five cases, or 66.7 per cent. of the commitments, recovered in an average period of 3.9 months. 13 were improved, 6 died and 48 remained unimproved. Ninety-six of the 347 cases were

reported on the monthly reports of troops serving in the Pacific islands, and 32 of these, or 33.3 per cent., were sent to the Government Hospital for the Insane. Seventeen cases, or 53.1 per cent., of those committed recovered in an average period of 3.6 months, 2 were improved, 2 died and 11 remained not improved.

It is not deemed necessary to do more than present these official figures to silence the sensational newspaper paragraphs which have been published during the past year relative to the unusual number of cases of insanity which have been returned to the United States from our troops operating in the Philippine Islands. Respectfully, CHARLES SMART,

Lieut.Col., Deputy Surg.Gen., U. S. Army.

Traumatic Neuroses.

WAVERLY, N. Y., Oct. 13, 1900.

To the Editor:—I note with surprise the discussion on Professor Bevan's paper in issue of September 22. Is it possible the majority of those taking part in the discussion represent the highest attainment of the neurologists of the present era? If so, there is small wonder that corporations do not generally employ them. I have too much respect for the eminent men, universally known and esteemed throughout the world, who have espoused that field to believe any such thing. Professor Bevan's experience is that of most experienced surgeons, be they railway surgeons or others. While I can not concur in all he says, in the main my experience for thirty years corroborates his views. But I wish briefly to refer to such authorities as Brourdel, Paget, Charcot and many others of equally world-wide fame, who state the proportion of simulated cases of traumatic neuroses as high as 80 per cent. One such authority claims that they often nurse themselves into a condition of pathologic entity resulting in serious lesions, sometimes resulting even in death. While I do not believe so large a percentage are consciously fraudulent, I do believe a very large percentage, a large majority even, are unconsciously so. Through psychic influences such conditions are engendered and engrafted on the nervous system, and much tact on the part of the surgeon or neurologist is necessary to overcome them. We should consider a very large percentage pure simulation, but not declare them as such to the patient. We should be careful not to overlook the genuine cases and to call to our aid the experienced neurologist if necessary.

R. SAYRE HARNDEN.

Medical Practice in Australia.

SYDNEY, NEW SOUTH WALES, Sept. 14, 1900.

To the Editor:—You have asked me to give you an occasional short letter. In the Australian colonies lodge practice has become a subject of much interest to the medical profession. Nearly one-fourth of the total population participates in cheap medical attendance through the means of these medical "friendly societies." There are 2650 medical men in the colonies, and of these 170 hold government positions, which prevents them from having private practice. One-third of the remainder have lodges, nearly 1200 souls to every lodge physician.

The medical profession is attempting to change existing conditions, but finds some difficulty in doing so. The lodge practice offers a ready means to the young practitioner to start in life; £150 to £200 per annum gives him some assistance while gaining a private practice. A change in the present system would be an advantage to the profession and public. In 1901 all the colonies come under a federation, and very probably after such a change more harmonious regulations will be established in regard to medical practice.

Years ago men holding American diplomas established some rather poor records in Australia. The medical men here are rather conservative, so that all Americans must suffer. A medical man here is somewhat at a disadvantage unless he has an English degree. P. M. K.

Average Doses in the Next Pharmacopeia.—A Protest.

SAGUACHE, COLO., Oct. 20, 1900.

To the Editor:—At the last convention for the revision of the U. S. pharmacopeia an instruction was given to the revision committee to insert the average dose of each article. This was stated by one of the leaders to be merely a concession to the demand by physicians that the forthcoming revision should result in a more practical manual for their use. In this spirit it was adopted without debate or alteration.

Conversation since that time with many of the delegates to that convention, as well as with professional gentlemen from all sections of the country, convinces us that average doses are not wanted in this work by either physicians or pharmacists, as in many instances they must be a wholly indeterminate quantity, owing to the wide range of conditions that are to be met, and under no circumstances could they be more than a treacherous guide to inexperience.

What is wanted both by physicians and pharmacists and what they have for more than twenty years been demanding is the insertion in this work of maximum safe doses, the intentional exceeding of which by the prescriber shall be indicated by an exclamation mark or otherwise.

This step would bring the work into accord with other standards, assure the prescriber of the usual limit of safe dosage in producing the specific effect of the drug and guide the pharmacist in discriminating between an error and an intentionally large dose. Few situations are more responsible and perplexing to a prescription clerk than to receive a prescription containing unusual doses, yet having no authoritative standard which will justify him in declining to prepare it until he can consult the prescriber. This vital point will be in no way improved by the proposed insertion of the average dose.

The "average" dose of any drug is almost wholly a matter of individual experience and method of treatment. Scarcely two of our American authorities will agree within wide limits on the best dose of a given remedy, even for the same complaint. How absurd, then, to specify an average dose for all complaints and all conditions of environment. The average dose of quinin in the Mississippi Valley would mean certain delirium in our mountain climates. Therefore the one demand for the protection of physician, pharmacist and patient is that this authoritative standard shall simply indicate the maximum safe dose of its preparations which may be exceeded by the prescriber, if necessary, by his indicating that he recognizes its unusual size, and from which he may descend toward infinity just as far as his judgment may guide, that is immaterial; the "maximum" dose is the important and serious one which every one who in any way handles drugs must know. The "average" dose is of service to few. Can not this error, as we consider it, be rectified before the labor of revision goes too far? There will probably be two years yet before its publication. J. TRACY MELVIN, PH.G., M.D.,

Member Convention for Revising U. S. Pharmacopeia, 1900.

Deaths and Obituaries.

ROSS RICHARDSON BUNTING, M.D., Jefferson Medical College, Philadelphia, 1856, died at his home in Roxborough, Philadelphia, Oct. 9, aged 66. He was the only child of Dr. Thomas Chalkley Bunting. After receiving his degree he studied five years in France and was one of the first Americans to receive the diploma of the Ecole de Médicine of the University of Paris. On his return to America he took charge of the practice of his uncle, Dr. Ross Richardson. He was a member of the principal medical societies and a frequent contributor to medical literature.

HOLT FAIRFIELD BUTT, M.D., University of Pennsylvania, Philadelphia, 1856, died at his home, Portsmouth, Va., Oct. 9, aged 66. Dr. Butt was one of the oldest practicing physicians in Tidewater, Va., served as a surgeon in the Confederate Army, was health officer and quarantine officer of Portsmouth, where he had practiced for more than forty years. The

Medical Society of the City of Portsmouth, at a called meeting, Oct. 11, passed resolutions expressing sorrow at his death and respect to his memory.

ELLIS HORTON, M.D., Medical College of Indiana, 1875, one of the best known physicians in Morgan County, died Oct. 6, from heart disease, a few hours after the death of his wife, at Monrovia, Ind., aged 58. He was the author of the "Hoosier Practitioner," a book which attracted considerable attention when it appeared a few years ago.

BENJAMIN F. TEMPLETON, M.D., Starling Medical College, Columbus, O., 1887, of Zanesville, died at the City Hospital, Findlay, from appendicitis, Oct. 2, aged 35. The Muskingum County Medical Society at its meeting, Oct. 5, passed resolutions of respect to his memory and of sympathy to his bereaved family.

ANDREW C. BERGEN, M.D., an old resident of Sioux City, Ia., a graduate of Long Island College Hospital in 1870, lieutenant-colonel and assistant surgeon-general Iowa National Guard, and major-surgeon 52d Iowa Infantry, U. S. V., in the Spanish-American War, died from apoplexy, October 3.

WADSWORTH A. WARD, M.D., Conneaut, Ohio, died September 30, after a long illness. He was graduated from the medical department of Western Reserve University, Cleveland, in 1861, resided for nearly forty years in Conneaut, and was surgeon to the Chicago, New York & St. Louis Railway.

ABNER V. DOAK, M.D., who studied medicine in the University of Virginia, served during the Civil War as surgeon in the Confederate service, was graduated from Bellevue Hospital Medical College and then engaged in general practice in Taylor, Tex., died September 15, aged 62.

WILLIAM W. BROWN, M.D., died a few hours after a cerebral hemorrhage, brought about, it is claimed, by an exciting automobile ride, at his home in Brooklyn, N. Y., October 5, aged 48. He was a graduate of Bellevue Hospital Medical College in 1884.

BENJAMIN F. TEMPLE, M.D., died at Zanesville, Ohio, October 2, two days after an operation for appendicitis had been performed. He was graduated from Starling Medical College, Columbus, in 1887, and was 35 years of age.

WILLIAM C. TOWLE, M.D., Medical School of Maine, 1855, died recently at his home in Fryeburg, Me., aged 70 years. During the Civil War he served as surgeon of the 12th and 23d Maine and the 8th Indiana regiments.

CHARLES MITCHELL, M.D., University of Louisville, 1871, died recently at Nashville, Tenn. The Nashville Academy of Medicine met Oct. 4, to express the esteem felt for Dr. Mitchell and the regret at his death, and appointed a committee to draft suitable resolutions.

TITUS DUNCAN, M.D., University of Michigan, 1862, one of the oldest and best known practitioners in Michigan, who served throughout the war in the medical department of the army, died at his home in Saginaw, Oct. 4, after a lingering illness, aged 66.

JOHN PAUL JONES, M.D., Bellvue Hospital Medical College, 1886, formerly a medical officer in the navy, and later a resident of Pine Bush, N. Y., died suddenly at Comfort, Texas, Sept. 26, age 38.

JOHN T. MILLER, M.D., who, although a graduate in medicine, had not practiced for many years, died at his home and birthplace, Edgewood, near Louisville, Ky., Oct. 12, from cancer of the stomach, aged 69.

CURTIS CLARK STRONG, M.D., Bellevue Hospital Medical College, New York, 1872, who had practiced medicine for twenty-eight years in Portland, Ore., died in that city Oct. 11, after a lingering illness, aged 52.

GEORGE W. WOODLIFF, M.D., Atlanta, (Ga.) Medical College, 1888, a resident of Oscarville, Forsyth County, died from rheumatism at the Grady Hospital, Atlanta, Oct. 3, aged 39.

WILLIAM R. LARKIN, M.D., Bellevue Medical College, 1880, surgeon of the New York Fire Department for many years, died at his home in New York, Oct. 15, aged 42.

JAMES H. LAFFERTY, M.D., College of Physicians and Surgeons, Baltimore, 1881, and for many years a practitioner at New Florence, Pa., died Oct. 14, after an illness of about two weeks, aged 46.

JOSEPH L. CUTLER, M.D., New York University, 1850, and since that time a resident of Bolivar, N. Y., and a leading surgeon of Allegheny County, died at his home, Oct. 14, from uremic poisoning, aged 71.

JOHN W. ELSTON, M.D., Bellevue Hospital Medical College, New York, 1871, one of the pioneer physicians of Kansas City, Mo., died in Burila, Colo., Oct. 12, from Bright's disease, aged 56.

FRANKLIN SMITH, M.D., University of New York, 1865, died on Oct. 9, at his home, in New York City, where he had practiced for more than twenty-five years, age 76.

LOUIS ROCH PERRAULT, M.D., Laval University, Quebec, 1887, who had practiced for a long time at Franklin Falls, N. H., died from cancer, Oct. 16, aged 38.

N. J. PASCHALL, M.D., Jefferson Medical College, 1869, a prominent physician of Fulton, Ky., died at his home, Oct. 12, two days after a stroke of paralysis.

HENRY B. GWYNN, M.D., Baltimore University, 1887, who had been engaged for many years in teaching, and was principal of Grammar School No. 1 in Baltimore, died at Gordonsville, Va., Oct. 11, from paralysis, aged 45.

T. H. HAIRSTON, M.D., University of Louisville, 1892, died at Marlin, Texas, Oct. 7, from hemorrhage of the bowels, after an illness of two weeks, aged 33.

DAVID BROCK, M.D., Tennessee Medical College, Knoxville, 1899, died at his home, Unitia, Tenn., Oct. 7, from consumption, aged 27.

WILLIAM M. CATERSON, M.D., Jefferson Medical College, Philadelphia, 1875, died at his home in Philadelphia, Oct. 7, aged 70.

GEORGE NELSON JONES, M.D., McGill University, Montreal, 1874, died at his home in Burlington, Iowa, Oct. 17, aged 48.

BENJAMIN A. FICHTNER, M.D., Confluence, Pa., died at Mount Pleasant, Oct. 7, from hemorrhage of the bowels, aged 65.

JAMES M. SUGGETT, M.D., Transylvania University, Lexington, Ky., 1847, died at his home in Flora, Ill., Oct. 9, aged 77.

JOHN C. BECHTEL, M.D., University of Pennsylvania, Philadelphia, 1876, died Oct. 11, at Rehrersburg, Pa., aged 49.

MILTON D. BROWN, M.D., Harvard University Medical School, Boston, 1894, of Baltimore, died recently at the residence of his parents, Charles City, Va.

JOHN GORDON FRAZER, M.D., New York University, 1865, formerly of New York City, died Oct. 4.

BENJAMIN HUSSEY WEST, M.D., Harvard University, 1838, a resident of Boston, died Oct. 11, aged 86.

JOHN MILLS, M.D., Pana, Ill., died Oct. 16, aged 81.

Miscellany.

Explanation.—Owing to an oversight part of the discussion of Dr. Peter A. Callan's paper on "Operations for Secondary Cataracts," in issue of October 13, was omitted. It will appear next week.

Extirpation of Gasserian Ganglion.—F. Krause now has a record of twenty-four cases of rebellious trigeminal neuralgia treated by extirpation of the Gasserian ganglion. Two of the patients have died since, the deaths not being directly imputable to the operation. All the rest are permanently cured.

Experimental Extirpation of the Liver.—Salaskin states that some dogs survived for three to five hours after extirpation of the liver. The urea in the urine was diminished during the interval before death, but not to such an extent in proportion, as the decrease in uric acid in geese after extirpation of the liver.

Sterilization of Sponges.—Carrière reports in the *Arch. Prov. de Chir.*, 1900, ix, that sponges can be rapidly and effectively sterilized without injuring their structure, in a 10 per cent. solution of hydrogen peroxid, in which they are left to soak for twenty-four hours. The absorbent properties of the sponges are not diminished even after six or seven months in the solution. The abstract in the *Cbl. f. Chir.* mentions that his tests were restricted exclusively to the bacillus subtilis.

Useless Efforts.—Certain of our foreign exchanges are commenting editorially in a pessimistic vein, on the futility of all efforts to educate the public in the matter of hygiene. "The most impassioned apostles of hygiene and sanitary progress seem to be powerless to convince even their own wives and daughters of the dangers of trailing their skirts through the filth of the streets, collecting animal ordure and urine and pathogenic microbes, and then dragging them into private houses."

Ophthalmic Hints.—The *Berliner Klin. Woch.* for July 9 mentions two practitioners who have found mercury extremely effective in ocular affections: Heddaus uses calomel internally or inunctions of gray ointment in blepharitis, and Guthmann, calomel, combined with local treatment in scrofulous and ocular affections. Jaqueau advises sewing the eyelid down after operating for cataract, in case of senile, rebellious or imbecile patients. Wolfberg recommends a hollow bandage after operations on the eye, made of lint mixed with glycerin-gelatin or formalinized bookbinders' glue, moulded over the orbit to form a tight, hollow cap, closely adhering but nonirritating.

The Blister as a Means of Determining Death.—The *Journal de Médecine*, of Paris, of August 19, states that an absolutely reliable means of determining whether death is apparent or real, is to hold a candle to the skin for a few moments until a blister forms, which soon occurs. If there is still life in the body the blister will be filled with serous fluid, in obedience to the inevitable physiologic laws, but if death has actually occurred, the tissues obey only the physical laws, and these compel the fluid in a heated tissue to pass into the form of vapor. Therefore, if the blister contains merely steam, the body is an inert cadaver, but if the contents are fluid, life is not extinct.

Should We Treat Fever?—In the discussion of this question at the International Medical Congress, Stockvis declared that "nursing, not treatment," was what febrile patients require; hygienic, analeptic, dietetic measures, hypurgia. Robin observed that in simple hyperthermia the general oxidations are increased, while in grave hyperthermia the oxidations are diminished and merely the elementary phenomena of disassimilation are augmented. The chemical processes of the organism, the diuresis and the nervous system should be stimulated in the latter. Reduction of the temperature alone is useless, as it is merely one manifestation of the febrile state. Huchard pointed out the varieties of fever in tuberculosis for example, each originating from a different process, germination, inflammation or absorption. Antithermia, he concluded, is easily induced, but of little practical use; antipyresis is more difficult to attain, but its triple aim of promoting chemical interchanges, diuresis and stimulating the nervous system, is sometimes reached by cold baths and weak doses of quinin—large doses produce the opposite effect.

A Peculiar Case of Cyanosis.—Dr. William Osler reports a remarkable case of cyanosis in a young white man now at the Johns Hopkins Hospital. He is a Pole, and it was difficult to elicit his history. He entered October 3. His illness began September 29, with chill, fever, pain in the chest, stomach and head and diarrhea. He had also had cough and expectoration and had been confined to bed. On admission he complained of pain in the abdomen, had considerable dyspnea, dry tongue and deep cyanosis. The respirations were 30 per minute, but the dyspnea was not urgent. There was slight emphysema and asthma. The leucocytes numbered 18,000. There was practically no fever, the temperature being, as a rule subnormal. He had remained practically in the same condition, the cyanosis being as noticeable in the recumbent as the erect posture. On October 7 petechiæ appeared about the face and extended over the entire body except the legs. The appearance was very like malignant hemorrhagic smallpox. The eosinophiles were 11 per cent. October 11, he complained of extreme tenderness over the muscles, and some muscular tissue was extirpated for examination. Much fatty degeneration was found. The eosinophiles were 25 per cent. October 14 the cyanosis began to diminish. Blood cultures were negative. Albumin was doubtful; there were no casts. The muscular tenderness had disappeared. Pulse good. There was a little puffiness of the face and eyelids. The petechiæ were still extensive. Dr. Osler regarded the case as entirely anomalous.

MARINE-HOSPITAL NOTES.

ASST.-SURGEON J. W. KERR, who has been detailed for duty in the office of the United States Consul General at Hong Kong, China, sailed from Honolulu for Hong-Kong on the steamship *Coptic* on Sept. 22.

QUARANTINE SERVICE IN PHILIPPINE ISLANDS.

AN EXECUTIVE order has been issued which details a commissioned officer of the Marine-Hospital Service on the staff of the military governor of the Philippine Islands as chief of the quarantine service of the islands. P. Asst.-Surgeon J. C. Perry has been detailed as such officer.

YELLOW FEVER IN HABANA.

REPORTS from Surgeon Glennan at Havana show that for seventeen days ending October 17, there were 175 new cases and thirty-nine deaths.

ASST.-SURGEON R. L. WILSON has been ordered from San Francisco to Honolulu to report to Surgeon Carmichael for duty at the marine-hospital station recently established at Honolulu for the treatment of seamen of the American merchant marine. Asst.-Surgeons Dunlop Moors and Carroll Fox, and Hospital Steward Myron R. Mason have been ordered to return from Dutch Harbor, Alaska, at the close of navigation. Assistant Surgeons B. H. Earle and B. J. Lloyd, who have been on duty at the national quarantine station at Nome, Alaska, are expected to return on the last revenue cutter leaving Nome at the close of the season.

THE ACTING ASST.-SURGEONS at the fruit ports of Central and South America have been ordered to return to the United States, November 1. This inspection service will be re-established on the same lines the coming season. The acting asst.-surgeons who were appointed in July last at Handsboro, Biloxi, Pascagoula, Scranton, Bay St. Louis, Pass Christian, McHenry, Ocean Springs and Gulf Port, Mississippi, to act as sanitary observers with a view especially to the early detection and report of first cases of yellow fever on the Gulf Coast, have also been discontinued. In addition to the places named above, the service has had its regular officers in all large ports on the South Atlantic and Gulf, who were given special instructions to maintain vigilance at their respective ports.

SANATORIUM FOR CONSUMPTIVE SAILORS.

THE MARINE-HOSPITAL Sanitarium at Fort Stanton, New Mexico, is now pretty well equipped, and there have been admitted since November, 1899, up to the present time, 78 patients suffering with tuberculosis. Of these 11 have been discharged recovered, 13 improved in health with prospect of recovery, and 8 have died, showing a very fair percentage of recoveries. Of the 8 who died, 7 were cases too far advanced at the time of their arrival to be benefited by the change of climate. It would seem from the above that the establishment of this sanitarium, which was sanctioned by the last Congress, was a wise measure, and it is in line with the efforts of State and municipal authorities to make provision for this class of patients.

PLAGUE SITUATION IN GLASGOW.

CABLE REPORTS from P. A.-Surgeon Thomas, at Glasgow, show that for the week ended September 29 there were four deaths from plague in the city, but no new cases; week ended October 6, one death but no new cases; and during the week ended October 13 there were no deaths and no new cases. The authorities, therefore, have probably succeeded in suppressing the epidemic. During the outbreak there have been eight deaths all told.

A CASE OF PLAGUE AT SAN FRANCISCO.

Another case of plague has been reported by the local board of health at San Francisco as occurring October 5, the diagnosis having been confirmed by bacteriological examination, October 11. The case was taken from the same house from which a fatal case was taken July 5 to the City Hospital. This

is the first case reported since August 18. It is presumed that the case was a Chinaman, as were the other cases.

YELLOW FEVER IN HABANA.

Reports from Surgeon Glennan, at Habana, show that for the week ended October 5 there were 55 cases of yellow fever officially reported in that city, with 16 deaths, and for the week ended October 12 there were officially reported 76 cases, with 14 deaths.

DETENTION OF NON-IMMUNE PASSENGERS FROM HABANA.

The value of the quarantine regulations requiring detention at northern ports of non-immune passengers from Habana a length of time to complete five days from departure was illustrated recently at the New York quarantine. A saloon passenger who had been given a red ticket at Habana by Surgeon Glennan, thus indicating that he was not immune, was detained at Hoffman Island. The voyage from Habana generally requires three and one-half days, so the passengers of this class are subject to one and one-half or two days detention. The same night, he developed a marked case of yellow fever and was transferred to Swinburne Island, where, according to Dr. Doty, he is doing well.

AN IMPROVED FORMALDEHYDE GENERATOR.

Under date of August 14, 1900, the acting director of the laboratory made a report to the surgeon-general on an improved formaldehyde lamp, of which a thorough test, lasting about a month, had been made. This lamp, known as the Kuhn Generator, is an apparatus designed to produce formaldehyde gas by the de-hydrogenization of wood or methyl alcohol. This is accomplished by passing the vapor of alcohol through discs or plates which contain incandescent, metallic platinum in a state of fine division. It is an improvement on the lamp that was designed and reported on by Surgeon Kinyoun. So satisfactory were the results of the tests that a dozen of the lamps have been purchased and are now in actual operation at the quarantine stations, where a thorough test of their durability, as well as practical utility, will be made. The advantages of an efficient lamp of this kind are so many that an enumeration of them in a short article is impossible. The full report, giving the details of the experiments, will be published shortly.

Societies.

Coming Meetings.

Southern Surgical and Gynecological Association, Atlanta, Ga., Nov. 13-15.
The Tri-State Medical Association of Mississippi, Arkansas and Tennessee, Memphis, Nov. 13-15.
Oklahoma Territory Medical Society, Oklahoma City, Nov. 15.
Indian Territory Medical Association, Muscogee, Dec. 4-5.
Pan-American Medical Congress, Havana, Cuba, Dec. 26-28.
Western Surgical and Gynecological Association, Minneapolis, Minn., Dec. 27-28.

THE AMESBURY (Mass.) MEDICAL ASSOCIATION, at its annual meeting, October 12, elected Dr. John A. Fitz-Hugh secretary and Dr. John A. Douglass, treasurer.

THE DELAWARE COUNTY (Ind.) MEDICAL SOCIETY met at Muncie, October 10. Dr. George W. H. Kemper presented a paper entitled "A Half-Hour with Hippocrates."

THE BROOKLINE (Mass.) MEDICAL CLUB has elected the following officers: Dr. J. Henry Woods, president; Dr. Henry M. Cutts, vice-president, and Dr. George H. Francis, secretary and treasurer.

THE IOWA AND ILLINOIS DISTRICT MEDICAL SOCIETY held its quarterly meeting at Rock Island, Ill., October 11, and listened to a paper by Dr. St. Elmo M. Sala, Rock Island, on "The Treatment of Typhoid Fever."

THE OSAGE COUNTY (Kas.) MEDICAL SOCIETY organized at Osage City, October 9, and elected the following officers: Dr. Albert L. Stubbs, Burlingame, president; Dr. Edwin B. Packer, secretary, and Dr. William B. Artz, treasurer.

A "PHYSICIANS' CLUB" has been formed at Greenfield, Mass. At the initial meeting, October 10, Dr. Halbert E. Stetson, Greenfield, was elected president and Dr. George A. Cooke, Montague, secretary and treasurer.

THE ESSEX NORTH DISTRICT (Mass.) MEDICAL SOCIETY entertained the Essex South District Medical Society at its meeting in Newburyport, October 10. Dr. William B. Coley, New York, delivered an address on "The Results of Modern Methods in the Treatment of Cancer."

THE DETROIT ACADEMY OF MEDICINE, at its annual meeting, October 9, elected Dr. Arthur D. Holmes, president; Dr. Heneage Gibbes, vice-president, and Dr. Harrison D. Jenks, secretary-treasurer. A special committee was appointed to investigate the Physicians' Business League.

THE CLARK COUNTY (Ky.) MEDICAL SOCIETY met at Winchester, October 13. Dr. J. N. McCormack, Bowling Green, secretary of the State Board of Health, addressed the society on state sanitary matters with especial reference to county boards of health.

THE NORTH BERKSHIRE DISTRICT (Mass.) MEDICAL SOCIETY met at North Adams, September 25, and elected the following officers: Dr. William Galvin, Blackinton, president; Dr. Nicholas Crofts, North Adams, vice-president; and Dr. Lyman A. Jones, North Adams, secretary and treasurer.

THE OPHTHALMOLOGICAL AND OTOLOGICAL SOCIETY of Washington, Dr. S. O. Richey, president, held its first fall meeting, October 9, at the residence of Dr. W. K. Butler, who read the paper of the evening, entitled, "The Necessity for Wearing Glasses."

THE GUTHRIE DISTRICT (Okla.) MEDICAL SOCIETY organized on September 29 and held its first regular session, October 10, with the following officers: Dr. John R. Hamil, president; Dr. Abraham L. Blesh, vice-president, and Dr. Eugene O. Barker, secretary.

THE NORTHEASTERN IOWA MEDICAL SOCIETY held its semi-annual meeting at Waukon, October 12, at which papers were presented by Dr. Daniel H. Bowen, Waukon, on "Typhoid Fever"; Dr. J. Cliff Crawford, Waukon, on "Catarrhal Pneumonia," and Dr. Philo M. Jewell, Decorah, on "Surgical Appendicitis."

THE ORANGE MOUNTAIN (N. J.) MEDICAL SOCIETY held its two hundredth meeting, Oct. 12, at Newark. The president, Dr. James S. Brown, Montclair, paid a tribute to the memory of the late Dr. William Pierson. Dr. Thomas W. Harvey, Orange, then gave a short résumé of the history of the society since its organization in 1883.

THE LAWRENCE COUNTY (Pa.) MEDICAL SOCIETY held its annual election of officers at New Castle, Oct. 11, with the following result: Dr. John Foster, president; Drs. Wallace and Charles A. Reed, vice-presidents; Dr. Edwin C. McComb, secretary, and Dr. William G. Wilson, treasurer, all of New Castle.

THE JACKSON COUNTY (Mo.) MEDICAL SOCIETY held its annual meeting at its rooms in Kansas City, Oct. 11, and elected the following officers: Dr. Amos A. Freyman, president; Dr. Winn F. Morrow, vice-president, Dr. Franklin E. Murphy, secretary; Dr. Louis W. Luscher, treasurer; Dr. Charles B. Hardin, censor, and Dr. Edward H. Thrallkill, librarian.

THE SAN JOAQUIN VALLEY (Cal.) MEDICAL ASSOCIATION held its annual meeting at Visalia, October 9, and elected the following officers: Dr. J. Lawrence Maupin, Fresno, president; Drs. John B. Rosson, Tulare, Henry Hildreth, Delano, and Thomas O. McSwain, Visalia, vice-presidents; Dr. Joseph D. Davidson, Fresno, secretary, and Dr. Thomas M. Hayden, Fresno, treasurer.

THE MEDICAL ASSOCIATION OF THE ST. FRANCIS DISTRICT, P. Q., at its quarterly meeting at Sherbrooke, elected Dr. T. L. Brown, Richmond, president, Dr. Stevenson, Coaticook, vice-president, and Dr. Thomas, Lennoxville, secretary. The transmission of typhoid fever and the question of medical fees were discussed.

THE CHICAGO GYNECOLOGICAL SOCIETY held its annual meeting, Oct. 19, 1900, and elected the following officers: Dr. Reuben Peterson, president; Drs. Lester E. Frankenthal and Henry Bangs, vice-presidents; Dr. William H. Rumpf, secretary; Dr. Addison H. Foster, treasurer; Dr. Charles S. Bacon, editor; Dr. Emil Ries, pathologist.

The Idaho State Medical Society, at its meeting at Boisé, October 4 and 5, elected the following officers: Dr. Joseph R. Numbers, Weiser, president; Dr. Hubert A. Castle, Pocatello, vice-president, and Drs. John W. Given, Blackfoot, Robert L. Nourse, Hailey; Jesse L. Conant, Genesee; Charles W. Shaff, Lewiston, and Lucian P. McCalla, Boisé, board of censors.

The Wayne County (Mich.) Medical Society, at its annual meeting, October 4, elected Dr. John J. Mulhern, president; Dr. Samus Bell, vice-president; Dr. George G. Gordon, secretary, and Dr. C. Henri Leonard, treasurer. Dr. Edgar B. Smith offered at paper on "Preparation for Surgical Operations"; and Dr. Edward T. Milligan addressed the society on October 18, on "Adenoid Vegetations."

The Cumberland District (N. J.) Medical Society convened at Millville, October 9, when papers were presented by Dr. Dowling Benjamin, Camden, on "Some Mooted Points in Pelvic and Abdominal Surgery," and by Dr. Charles W. Wilson, Vineland, on "Treatment of Appendicitis from the General Practitioner's Standpoint." Dr. S. Thomas Day, Port Norris, was elected reporter for the ensuing year.

The Hartford (Conn.) City Medical Society at its October 1 meeting was presented by Dr. W. Gordon Russell with a stately carved oaken chair for the use of its presiding officer and also with some beautiful anatomical drawings, the donor of which wished to remain unknown. Drs. Arthur J. Wolff and Charles E. Taft reported cases and presented specimens, and Dr. George R. Shepherd read a paper on "Non-Surgical Methods for Treating Cancer."

The Brashear Medical Society held its quarterly meeting at Bloomfield, Ky., October 16. Dr. Aloysius G. Blincoe, Bardstown, read a biographical sketch of Dr. Walter Brashear, and a paper on "Some Facts, Fancies and Fallacies About Eye-Strain"; Dr. William W. Ray, Springfield, presented a paper on "Some Practical Trifles"; Dr. Benjamin E. Gore, Bardstown, one on "What Shall We Prescribe?" and Dr. J. T. Tichenor, Waterford, one on "Erysipelas."

The Middlesex Sohth District (Mass.) Medical Society met at Cambridge, October 10. Dr. Zabdiel B. Adams read a paper entitled "When Should the Medical Examiner Be Called?" Dr. Julian A. Mead, Watertown, considered "The Duties of the Medical Examiner"; Dr. Eugene G. Hoitt, Marlboro, compared the "Advantages of the Medical Examiner System Over the Coroner System," and made suggestions toward the betterment of the present law, and the Hon. John R. McLaughlin discussed "The Medical Examiner and the Physician in the Witness-Box from the View-Point of the Lawyer."

The Cheshire County (N. H.) Medical Society held its annual meeting at Keene, October 9. The guest of the evening was Dr. Charles G. Cumston, Boston, who delivered an address on "Cancer of the Liver and Gall-Bladder." Dr. Silas M. Dinsmoor, Keene, read a paper on "Some New Remedies," and the retiring president, Dr. Israel A. Loveland, Gilsum, delivered the annual address on "The Prevention of Nervous Diseases Throughout the State."

The McDonough County (Ill.) Medical Society held its annual meeting at Macomb, October 2. Papers were read by Dr. John P. Roark, Bushnell, on "Rheumatism"; Dr. Arthur D. Pollock, Macomb, on "The Treatment of Typhoid Fever and Its Complications," and Dr. Samuel C. Stremmel, Macomb, on "Dysmenorrhea." The following officers were elected: Dr. Joseph B. Holmes, Macomb, president; Drs. John B. Roark, Bushnell, and Henry Knappenberger, Macomb, vice-presidents; Dr. Robert E. Lewis, Macomb, secretary and treasurer, and Dr. Elizabeth R. Miner, Macomb, necrologist.

The Somerset County (Pa.) Medical Association held its annual meeting at Meyerdale, October 18, and elected the following officers: Dr. Bruce Lichty, Meyersdale, president; Dr. Henry Garey, Berlin, vice-president; Dr. H. Clay McKinley, Meyersdale, secretary; Dr. W. T. McMillan, Meyersdale, corresponding secretary, and Dr. Walter S. Mountain, Confluence, treasurer.

The Fulton County (Ill.) Medical Society held its third annual meeting at Canton, October 2, and elected the following officers: Dr. W. E. Schallenberger, Canton, president; Drs. Perry H. Stoops, Ipava, and S. B. Bennett, Canton, vice-presidents; Dr. David S. Ray, Jr., Cuba, secretary, and Dr. Frank M. Harrison, Bryant, treasurer. Dr. Paul S. Scholes, Canton, read a tribute to the late Dr. Joseph V. Harris; Dr. Ellen Heise, Canton, presented a paper on "Smallpox"; Dr. Willis T. Ziegler, Canton, one on "Appendicitis," and Dr. Thomas R. Plummer, Farmington, one on "Tonsillitis."

The National Association of Colored Physicians and Surgeons held its fourth annual meeting at St. Louis, October 3 and 4. Papers were read by Dr. John W. Rowland, Pine Bluff, Ark., on "La Grippe Meningitis"; Dr. Willis E. Sterrs, Decatur, Ala., on "Typhoid Fever"; Dr. John W. Norrell, Elizabethtown, Ky., on "Carcinoma of the Pyloric End of the Stomach." The following officers were elected: Dr. Ferdinand A. Stewart, Nashville, Tenn., president; Dr. A. Wilberforce Williams, Chicago, vice-president; Dr. John W. Norrell, Elizabethtown, Ky., secretary, and Dr. Ottoway T. Fields, St. Louis, treasurer. The next meeting will be held in Hot Springs, Ark., in September, 1901

The Iowa State Association of Railway Surgeons convened at Des Moines, October 11, for its seventh annual session. President Dr. Nathan C. Morse delivered an address in which he urged that the principles of first-aid be taught in our public schools and generally. Papers were read by Dr. John N. Warren, Sioux City, on "Fractures of the Pelvis"; Dr. David S. Fairchild, Clinton, on "Sequela of Case of Nerve Injury Presented at Clinton Meeting"; Dr. Gilbert Baldwin, Ruthven, on "Talma's Operation, Report of Case"; Dr. John C. Schrader, Iowa City, on "Railway Surgeons as Sanitarians"; Dr. Van Buren Knott, Sioux City, on "The Use of Anesthesia in the Diagnosis and Treatment of Fractures"; Dr. Henry C. Eschbach, Albia, on "Ununited Fractures"; Dr. Paul E. Gardner, Hazleton, on "Injuries of the Elbow-Joint"; Dr. Francis V. Shore, Des Moines, on "The Simulation of Eye Diseases"; Hon. Carroll Wright, Des Moines, on "The Relation of the Railway Surgeon to His Patient"; Dr. Gilbert G. Cottam, Rock Rapids, on "Technic and Limitations of Emergency Surgery"; Dr. Arthur L. Wright, Carroll, on "Hernia"; Dr. George C. Stockman, Mason City, on "Submeningeal Cocain Anesthesia"; Hon. W. H. Bailey, Des Moines, on "What Pecuniary Compensation Should One Receive for Disabling Injury or Loss of Life?" The following officers were elected: Dr. Gilbert G. Cottam, Rock Rapids, president; Dr. Arthur L. Wright, Carroll, vice-president; Dr. Ira K. Gardner, New Hampton, secretary, and Dr. Gilbert Baldwin, Ruthven, treasurer. Des Moines was selected as the next meeting-place of the association.

New York State Medical Association.

Seventeenth Annual Meeting, held in New York City, Oct. 15-18, 1900.

President Dr. E. D. Ferguson, Troy, in the chair.

There was a very largely-attended meeting of the Council and Fellows held in the forenoon of the first day at the New York Academy of Medicine, in accordance with the plans for re-organization of the State Association. It will be remembered that the "Fellows" are the delegates appointed to represent the whole Association on a basis of representation of one in ten. The meeting was called to order promptly by the president of the Association, Dr. E. D. Ferguson, who then delivered an address in which he set forth the more important changes which it was proposed to make in the organization of the Association.

Dr. Frederick Holme Wiggin, chairman of the Committee on Reorganization, in presenting the report of this committee—the proposed new by-laws—delivered an address in which he pointed out very clearly the need for better organization, and the interest that had already been awakened in various parts of the United States in connection with the proposed action of the Association.

An attempt was then made to consider the by-laws seriatim, but after considerable discussion it became evident that those present had not fully grasped the full meaning of the proposed plan, and accordingly the by-laws were referred to an enlarged committee.

The Association was called to order by the President promptly at 10 a. m., Tuesday, and it then formally accepted the charter procured last spring. This having been done, the Association took a recess to allow an opportunity for the Council and Fellows to meet and pass on the proposed by-laws. The enlarged committee presented to this body the result if its labor since the session of the day previous. In brief, it may be said that while they recommended the adoption of the general plan, as printed and circulated, they were in favor of certain minor changes. Among the latter, was the proposition to postpone, for the present, the institution of associated medical defense and the conferring of a death-benefit. After a very full discussion by the Council and Fellows, the report of the committee was adopted, the new by-laws stating very clearly the purpose of the Association to embark in the work of defending its members against suits for malpractice at no very distant day. This preliminary business served to clear the air of many doubts, fears and suspicions thaat had hovered over the convention at its first session, and in the succeeding days of the meeting it was a matter of common remark that the spirit of harmony and good fellowship was abroad, and that the members of the New York State Medical Association were cemented together by closer ties than ever before.

A NEW THEORY OF MUSCULAR RHEUMATISM.

SIR JAMES GRANT, Ottawa, at the opening of the regular scientific session, was presented to the Association, and he embraced the opportunity to describe his studies in muscular rheumatism, and his recently published conclusion, to the effect that muscular rheumatism is dependent on the accumulation in the muscles of an abnormal charge of electricity. The treatment, founded on this theory, has certainly proved very successful in his hands. It consists in plunging a number of fine needles into the affected muscles, and almost immediately withdrawing them. When this had been done, it would be found that the rigidity and pain in the muscles had disappeared. By connecting the needles with an electrometer one could easily satisfy himself of the existence of the electrical charge, as well as of its removal by passage through the uninsulated needles to the person of the physician.

ANALOGY BETWEEN NERVOUS AND ELECTRIC CONDUCTIBILITY, AND THEIR RELATION TO FUNCTIONAL NEUROSES.

DR. A. D. ROCKWELL, New York City, read a paper with this title. He considers that there is an analogy between nerve conductibility and the variations in electric conductibility noticed in an instrument known as a "coherer." This is a glass tube filled with iron filings. It does not normally conduct electricity, but if placed in a solenoid situated in the path of a high frequency current, it at once becomes a conductor, presumably because this current has produced an expansion of the sheaths of condensed ether supposed to surround each particle of metal. The natural resistance of the neurons is thought to be overcome in a similar manner.

COCAINISM.

DR. T. D. CROTHERS, Hartford, Conn., read a paper on this topic. He said that cocainism appears in two forms, the periodic and the continuous. The principal action of cocain is a stimulation of the brain, producing a sense of exhilaration and a peculiar exaltation of brain activity. The stage of intoxication is marked by great talkativeness, a flow of speech which is in marked contrast with the speech of the alcoholist. Again, the cocainist may be distinguished from the alcoholist by his solitary habits. A significant symptom in the later stages is a sensation of bugs crawling over the skin. The prognosis is always grave. In treating cocainism, the speaker recommended the immediate withdrawal of the drug, and the use of valerian, hyoscyamus and other drugs of that class as temporary substitutes. The patient should be sent away to a sanatorium until the acute symptoms had subsided, and after that should remain for a long time under the constant supervision of his family physician. One cause for the undoubted increase in the use of cocain is that it is sold everywhere without the restraint of law. Other reasons for the spread of cocainism are its reckless use by many physicians, and its presence in many proprietary preparations.

HEART COMPLICATIONS IN RHEUMATISM.

DR. JAMES J. WALLS, New York City, presented in this paper some of the views recently expressed at the International Medical Congress in Paris. He stated that there is little doubt that acute rheumatism is an infectious disease, although its specific cause must be totally different from micro-organisms known at present. The treatment should embrace measures calculated to secure antisepsis of the alimentary canal.

TREATMENT OF PATIENT PRECEDING EXPECTED CONFINEMENT.

DR. EDWARD P. DAVIS, Philadelphia, read the opening paper of the symposium on obstetrics. Commenting on the importance of a careful supervision of the excretory functions, he said that the occurrence of neuralgic disturbance of the cardiac rhythm, changes in temperament, loss of appetite and vague frontal headache, associated with diminished excretion, constitutes a clinical picture of great significance. In the latter part of pregnancy, it is well to limit the consumption of meat to once daily. The presence of serum albumin alone in the urine is of but little significance. When toxemia is present, water should be drunk freely, and it could also be used to advantage in the form of colonic washings. Calomel, in doses of 1/20 of a grain, night and morning, is very useful in increasing the elimination of urinary solids. If sedatives are needed in cases of toxemia, chloral or some derivative of it gives the best results. Walking is a most valuable exercise for pregnant women of all classes of society. A diagnosis of central placenta prævia at any time during pregnancy should be considered a positive indication for the immediate induction of labor.

MANAGEMENT OF NORMAL LABOR, INCLUDING THE USE OF FORCEPS.

DR. AUSTIN FLINT, JR., New York City, insisted on the pregnant woman taking daily walks up to the time of confinement, the object being to strengthen the muscles, soften the cervix and guard against malpresentations. A thorough pelvic examination, he said, should be made at the end of the eighth month.

OPHTHALMIA NEONATORUM.

DR. JOHN E. WEEKS, New York City, was favorable to the employment of the Credé method of prophylaxis in all cases. The treatment should consist in washing out the eyes every half hour with a 3 per cent. boric acid solution, together with a daily application to the lids of a 1 per cent. solution of nitrate of silver, and the use of cold applications until secretion ceases.

AFTER-TREATMENT OF THE MOTHER IN NORMAL CASES.

DR. GEORGE W. JARMAN, New York City, contributed this paper. Attention was called to the importance of the physician's remaining at hand for at least one hour after delivery in order to insure continued firm contraction of the uterus. He saw no objection to urinating in the sitting posture after the third day. It was not generally known that an excessive secretion of milk could be materially diminished by taking coffee. Hemorrhoids were often quite troublesome after labor, but would usually be relieved by cold applications and the use of suppositories containing one grain of ichthyol.

PUERPERAL SEPSIS; ITS PATHOLOGY AND TREATMENT.

DR. WILLIAM R. PRYOR, New York City, said that autoinfection in puerperal women had been pretty thoroughly disproved, with possibly a few very rare exceptions. The cases could be divided into two classes, septic thrombosis and pelvic lymphangitis. The first class is especially fatal. He mentioned the popular treatment by intermittent washings only to condemn it as inefficient and harmful. Cases of septic thrombosis were the only ones in which he would resort to hysterectomy. He commences treatment by thorough curettage of the uterus and washing out of debris, and follows this by a free incision into the cul-de-sac and evacuation of serum. He then applies a Mikuliez dressing, using a specially pre-

V. 3
190

pared iodoform gauze. Cold enemata of salt solution are used every three hours to favor elimination.

TECHNIQUE OF BLOOD EXAMINATION.

Dr. Edward K. Dunham, New York City, opened the evening symposium on the blood by describing the methods of determining the specific gravity and reaction of the blood, and of estimating the quantity of hemoglobin and the number of corpuscles.

LEUCOCYTOSIS IN RELATION TO SURGICAL DIAGNOSIS.

Dr. Joseph C. Bloodgood, of the Johns Hopkins University, discussed the interesting relations of leucocytosis to appendicitis, peritonitis and obstruction of the bowel. He said that in cases of appendicitis the absence of a leucocytosis does not exclude a small abscess, but its presence is almost pathognomonic of absence. A high leucocyte count in the first twenty-four hours of a peritonitis was of little significance, but its persistence after this time made the prognosis more favorable. He had found that intestinal obstruction from any cause is almost invariably followed in a few hours by a rise in the leucocyte count.

PERNICIOUS ANEMIA.

Dr. Alfred Stengel reviewed in this paper the literature, and said he would regard as pernicious anemia a case presenting the usual symptoms of this disease, together with a count of the red blood-corpuscles amounting to 1,500,000, and a proportionate number of leucocytes. By appropriate treatment it was entirely possible to stay the progress of the disease for several years.

LEUKEMIA.

Dr. C. Y. White, Philadelphia, considered leukemia under two heads, namely, splenomyelogenous leukemia and lymphatic leukemia. The anemia of the second variety is less marked, and there is less red cell degeneration and leucocytosis.

PARASITES IN THE BLOOD.

Dr. Leon T. Le Wald, New York City, under this heading, gave an interesting account of the two very recent and famous experiments by which had been demonstrated the positive part played by the mosquito in the malarial infection of man.

VALUE OF BLOOD EXAMINATIONS IN THE DIAGNOSIS OF TRICHINOSIS.

Dr. H. C. Gordinier, Troy, reported in this paper two cases of trichinosis, coming under his observation, which served as additional confirmation of the value of the discovery made by Dr. Brown, Baltimore, that the enormous increase of eosinophiles in the blood is a valuable diagnostic aid in cases of trichinosis.

The following officers were elected: President, Dr. John A. Wyeth, New York City; vice-president, Dr. A. A. Hubbell, Buffalo; secretary, Dr. Frederick Holme Wiggin, New York City; treasurer, Dr. E. H. Squibb, Brooklyn; chairman of committee on legislation; Dr. Irving S. Haynes, New York City; chairman committee on legislation, Dr. E. Eliot Harris, New York City; chairman library committee, Dr. John W. S. Gouley, New York City; chairman committee on public health and medical charities, Dr. Stephen Smith, New York City; chairman committee on nominations, Dr. C. A. Wall, Buffalo; chairman committee on publications, Dr. James Hawley Burtenshaw, New York City. The foregoing constitute the Council of the Association for the ensuing year. The district presidents at present are as follows: First District, Dr. Charles B. Tefft, Utica; Second District, Dr. John T. Wheeler, Chatham, Third District, Dr. Theron A. Wales, Elmira; Fourth District, Dr. William H. Thornton, Buffalo; Fifth District, Dr. J. C. Bierwirth, Brooklyn.

Dr. C. A. L. Reed, president of The American Medical Association, was then introduced to the Association. He said: I thank you for your very cordial greeting, and I accept it as a fealty on your part to our great National Organization which I have the honor, for the time being, to represent. I have peculiar pleasure, however, in meeting you to-day because I discover in your charter, a copy of which has been placed in my hands by your efficient secretary, a proclamation of principles which appeals to me with peculiar force. The first there enumerated, the cultivation of our humane sciences and the promotion of the esprit de corps in our profession, are sufficient in themselves to commend this organization to the enthusiastic regard of every practitioner in this Empire State. Your provision for a death-benefit, which I understand is held under advisement, must, it seems to me, appeal to every one who has a sympathetic cord in his bosom and understands the mutability of fortune. It is the irony of experience that he who often needs succor is the Samaritan himself. This feature of your organization may well be emulated by every state society in the Union.

On this occasion, however, I find myself especially interested in the fourth plank in your platform—that plank which announces as one of your fundamental principles the promotion of harmony, or, as your charter itself says, "the furtherance of cordial professional relations and fellowship between the medical profession of the State of New York and the medical profession of other states of the United States and of foreign countries through the medical associations and societies of such states and countries."

Criticism of that clause must exhaust itself in commendation. It breathes the spirit of harmony, and the spirit of harmony is abroad in the profession, not alone in the State of New York but in the country over. This clause means the union of your noble profession. This clause means that every member of your state organization should become a member of The American Medical Association, and I am delighted to know that many already sustain that relation. This means, as it should mean, that you stand consecrated to an idea above other ideas—the idea of the unity and the solidarity of our great national profession. I know of no object more worthy of your zealous devotion. It simply means that this movement is one on your part that will command the cordial co-operation of the great national body of the profession—not only The American Medical Association, but the great independent body of the profession.

If you stop to think of that independent body you can appreciate its magnitude. Notwithstanding your splendid success in this body—unparallelled in the work of state organization in the United States—and notwithstanding the existence of another state organization in New York State, where the regular profession numbers ten thousand, there are but two thousand yet within the fold of organization. In the United States of America, with an aggregate regular profession of nearly one hundred thousand, there are but ten thousand enrolled in The American Medical Association. There is, therefore, much work in the direction of organization. The spirit is abroad in the land; it will brook no opposition. It is deeply grounded in the sentiment of the general profession, that to be effective at Albany, or Washington, or at the various state capitals, the profession must stand together, man to man and shoulder to shoulder. It ought to take but little time and less effort to accomplish a change that is already accomplished in sentiment. There is not much occasion for the rescinding of resolutions; there is not much occasion for the modification of by-laws or the amendment of constitutions. Possibly some memories may be well effaced, and some conventions that have honorably served their day but are now relatively meaningless. These are subsidiary matters which can well take care of themselves.

He who interposes prejudice, preference or prerogative as obstacles to this consummation is to be looked on and treated as the enemy of progress. I ask, and look confidently, for the cordial co-operation of this great and efficient organization in extending its influence all over the United States. From the remotest districts you will find coming back to you words of cheer, words of encouragement, words of co-operation. The medical profession to-day—and I have reason for the faith that is in me—the medical profession of to-day, the country over, is ready to taken any necessary step, through its organized bodies, that it may present a united front to the dawning century.

(To be continued.)

Chicago Medical Society.

October 10, 1900.

THE CLIMATIC CONDITIONS OF THE SOUTHWEST CORNER OF THE UNITED STATES.

DR. NORMAN BRIDGE read the above paper. Climate is wholly a question of atmosphere. The atmosphere is the same everywhere with variations due mostly to local conditions. The variations may be classified under: 1, temperature; 2, moisture; 3, weight of air (barometric); 4, sunshine; and 5, contaminations as of gases, dust and microbes. These variations are due largely to the physical conditions of each region of the earth's surface; and as the latter differ more or less there are no two climates that are exactly alike. The most potent physical factors are: altitude—mountains—latitude, and large bodies of water.

Southern California is divided by a mountain range that, with the ocean, surrounds an irregular half-elliptical region, which has a climate wholly different from that of the desert lands north and east of the mountains. The climate of this coast-mountain region is determined by the three conditions named to a degree hardly found more marked, in any part of the world. The mountain range is four to five thousand feet high; the plateau of habitable land (from 1 to 50 miles wide) has an elevation from sea level to 1500 feet, and rising toward the foothills; the ocean is enormous and cold; and the latitude is nearly as far south as Cairo in Egypt.

As a result of all this the sun warms the land during the day, the air rises by its lightness, air cooled by flowing over the ocean rushes in to take its place all day, making an ocean breeze. The dry air of the mountains and plains causes rapid radiation of heat at nightfall, the stars are brighter there than in this part of the country by reason of the reduced humidity); the air becomes rapidly cooled in consequence, and first cools on the mountains; and by its weight flows down toward the sea most of the night producing a gentle breeze nearly every night, especially in summer. The result of these conditions is a mild, comfortable atmosphere nearly every day throughout the year. The exceptions are an occasional wind in autumn and rather uncomfortably high temperature in some of the more inland foot-hill regions a few days in summer. Without the peculiar arrangement of mountain and ocean with habitable land between, Southern California with its far south latitude, from being one of the most comfortable regions for a residence winter and summer in the world, would be a most uncomfortable one except in winter.

The desert region north and east of the mountains is very dry and very warm in the summer, although not uncomfortable in winter. Heavy rains fall irregularly, more often in the summer, but the air is usually very low in humidity and altogether the climate is totally different from that of the zone on the other side of the mountains.

The highlands of Arizona are arid and comfortable both winter and summer. The regions of low altitude, especially far south, are in summer too hot for comfort.

The statistics as to physical conditions of the southwest corner are interesting when compared with those of the east. The mean temperature of Southern California is higher than Chicago by about four degrees Fahrenheit in summer and thirty degrees in winter. The relative humidity is lower by 5 to 10 per cent., but the actual humidity is higher than in any region east of the mountains. The cloudiness is only two-thirds as much as that of the region about Chicago; the rainfall is a third or less than that of the Mississippi Valley.

One of the most remarkable atmospheric conditions is the slight range of the barometer; that of Los Angeles being only 14/100 of an inch, while that of Chicago is over 56/100.

The actual temperature of the whole southwest region ranges higher than the east by several degrees and most in summer, but the sensible temperature, that which is actually perceived by man, is seven and one-half degrees Fahrenheit less than that of the east. This is wholly due to the reduced relative humidity—the percentage below saturation.

Fogs abound in certain regions, especially nights and early mornings. They simply mean a sudden drop in temperature so that saturation is reached. The sunshine soon warms the air and redissolves the fog. As the chilling of the warm clear air is usually by a cold ocean current containing much less actual moisture, the mixed air of the fog usually has less water than the warm air did before; hence a curious paradox of wet cloths and dripping roofs with less absolute moisture than before the fog appeared. It is only a small part of the time that humidity is 100 per cent.

The physical discomforts incident to weather, of a continuous residence in Los Angeles, are about a quarter what they are in Chicago—yet people there growl at a disagreeable day. Thermic fever is practically unknown, as is hydrophobia, and in nine years there I have yet to see a case of lobar pneumonia, non-tubercular.

Southern California is the paradise of children and old people—the former thrive and have many fewer infantile diseases than here; the latter piece out their lives as they can not anywhere else in the world.

Of course, the greatest number of cases of disease migrating thither are of tuberculosis and many of these recover; so many that it strongly supports the theory that neither great altitude nor great dryness of air is of half as much value as the ability to live day and night in an outdoor atmosphere.

Many cases of chronic articular rheumatoid diseases find their way there and nearly all get better.

Cases of chronic bronchitis and asthma are nearly all more or less benefited.

THE FATE OF SPONGES, LIGATURES AND OTHER FOREIGN BODIES IN THE PERITONEAL CAVITY.

DR. CARL BECK, after reviewing the literature on the subject, which covers experiments, as well as experiences during and after operations, adds two cases of sponges left in the abdominal cavity by him to the number already published. In one the sponge caused an abscess which opened into the incision. In the other, it was discharged through the bowel. He cites three typical cases of silk ligatures sloughing through into the bowel, the bladder, and uterine cavity. Such cases may puzzle the operator, especially as a number of the most perplexing symptoms obscure the diagnosis. Serious consequences may follow the sloughing of sutures into hollow organs like the bladder, the lung, or even the intestine, but, as a rule, they are more marked by a tedious, protracted ailment of an indefinite character. Hemorrhage from the intestine is a very characteristic symptom, and led Dr. Beck to suspect in one case a forgotten sponge which was verified afterward by experience.

His conclusions are: 1, Silk ligatures are not as harmless as they are usually regarded. 2. Absorbable material should be preferred. 3. If unabsorbable material is used, small and interrupted sutures should be employed. 4. It takes less time for the interrupted one to slough out. 5. A way out is to be prepared if ligature suppuration is suspected. 6. Even catgut may cause such symptoms.

ELIMINATION OF THE INFLAMED,, GANGRENOUS, OR PERFORATED VERMIFORM APPENDIX FROM THE GENERAL CAVITY.

DR. A. J. OCHSNER points out the fact that the vermiform appendix is located in the peritoneal cavity in a spot bounded by relatively fixed areas on all except the inner side, and that on this side lie the exceedingly movable small intestines; also that the appendix is surrounded by the omentum as soon as it becomes inflamed or gangrenous, or in case a perforation is threatened. If this condition can be maintained throughout the attack it is plain that the appendix will be practically eliminated from the peritoneal cavity. Experience has shown that this condition of rest is disturbed only by peristaltic motion, and that this occurs only as a result of placing food or cathartics in the stomach. Consequently, if neither food nor cathartics are given by mouth this condition of rest will not be disturbed, unless there is present at the beginning of the attack an amount of food in the stomach. It happens frequently that an attack follows the taking of a large meal. In this case, the stomach should be irrigated and its contents removed.

This will stop the vomiting and will inhibit peristaltic motion.

The author advises the use of some concentrated, predigested food, diluted with normal salt solution, for the purpose of rectal alimentation, in quantities not to exceed four ounces at intervals of four hours. This treatment, which is continued until the patient has been free from symptoms for at least four days, will not protect the patient against a recurrence, nor against the very troublesome digestive disturbances due to the adhesions following appendicitis, but it will carry the patient safely over an acute attack changing what threatens to be a dangerous diffuse into a comparatively harmless circumscribed peritonitis; enabling the surgeon to select a favorable time for operation.

The paper contains a series of consecutive histories illustrating the plan of treatment and its results. In the author's hands this method has reduced the mortality in cases of inflamed, gangrenous or perforative appendicitis to one-fourth of that formerly experienced in his practice.

TWO INTERESTING CASES OF APPENDICITIS.

Dr. A. R. Small reported these mainly because of the peculiar position and investments of the appendix in both of them. He had not been able to find the report of a similar case in the voluminous literature of appendicitis, nor has he been able to find any one who has seen a similar case. The peculiarity in common in the two cases consisted in the location and investments of the appendix. The appendix was unusually long in both cases, being six inches long in one and five in the other. The appendix in both cases was turned backward and upward along the band of longitudinal fibers of the cecum and colon, and covered by the same peritoneal coat as the bowel, except in one case, one inch of the distal extremity, and in the other one-half inch. There was no mesentery in either case, but the appendix lay in intimate contact with the posterior surface of the bowel along the band of longitudinal fibers, and the peritoneal coat invested both the bowel and the appendix, so that it was almost impossible to discover the appendix except by its free distal extremity. This condition was not due in either case to inflammatory exudate and adhesions, but was evidently congenital. The author then narrated the two cases in detail.

The cases were interesting also on account of one being of so serious a nature, yet manifested mild symptoms; and the other from the fact of having had so many attacks without more serious results. In one the first attack would probably have been fatal without an operation; in the other there were many attacks without producing a fatal result.

Dr. Harold N. Moyer believes that the method outlined by Dr. Ochsner is based on correct scientific principles. While he has seen but a few cases of acute appendicitis, he has witnessed a large number of chronic ones. While he would condemn in unmeasured terms operation in the early stage, unless done very early, when these cases are rarely seen, in the acute stage, he would just as firmly and enthusiastically urge operation on all chronic cases. After the acute stage has passed the appendix should be removed.

Dr. William M. Harsha said that any method of treatment which would give only 8 cases of death out of 248 patients deserved more than a passing notice. However, he believes that the method of Dr. Ochsner is no more applicable to every case than any other method that has ever been devised. In cases of fulminating appendicitis in which perforation takes place, it requires a great stretch of the imagination to see how opium and starvation would limit the sepsis so as to make it safe for the patient without operation. He believes there are a number of cases of fulminating appendicitis which should be operated on as soon as the diagnosis is made.

Dr. Fenton B. Turck recommended colonic lavage, saying that by it the fecal matter could be removed without increasing the peristalsis of the entire alimentary tube, without overstretching the colon, and obtaining the heat stimulation necessary for the purpose of removing gases and lessening pain. After lavage of the colon it is much easier to make an accurate diagnosis.

Dr. William E. Schroeder referred to the medical statistics of appendicitis, saying that out of 7000 cases cited by one author no reference was made to complications. The complications are abscess of the liver, septic pleurisy and other forms of suppurative disease. He has seen three or four cases where the appendix was removed before perforation had taken place.

Dr. W. T. Eckley has seen only two cases where the appendix was esconced between the two layers of the mesocecum out of 400 appendices in cadavers during the last five years. In both the mesocecum was very short. The cecum was located high in the right iliac fossa.

Dr. J. N. Bartholomew, in operating on a case of appendicitis recently, found the appendix situated in the posterior part of the cecum, its lower half being covered with peritoneum. The appendix was eight inches long, and extended up in the direction of the liver. The end of the appendix, in which the abscess was situated, lay in close contact with the gall-bladder.

MYASTHENIA GRAVIS.

Dr. Sanger Brown reported a case. The patient was a teacher, with good family history. Nervous temperament. After having attended a social function several months previously, there was muscular exhaustion on slight exertion, so that it was with difficulty that she was able to move her arms and legs. Diplopia and ptosis became troublesome; the voice nasal and articulation imperfect. Occasionally there was humming in the ears and pains throughout the body, but the latter were infrequent and trivial. Mucous membranes of the mouth and nose were uncomfortably dry at times; hair and scalp very dry. Skin has remained in good condition. Appetite, digestion, sleep, etc., were satisfactory. Habitual constipation was somewhat aggravated. Very little mental depression existed. After a short walk there is not enough strength for the patient to cross her legs when sitting. Patient has lost fifteen pounds in weight since illness. Reflexes are lively, but normal; voluntary motion in every direction. No inco-ordination is present. Strength was greatly reduced. No suspicion existed of muscular atrophy or deformity; no pain or tenderness on pressure. There was no evidence of hysteria.

After detailing the other symptoms in this case, Dr. Brown referred to the literature of other cases and dwelt on the differential diagnosis between myasthenia gravis and hysteria, as well as other affections.

Dr. Henry B. Favill said he had seen one case which he believed could be designated as myasthenia gravis. The patient was 47 years of age. Toxic neurasthenia was one of the many manifestations occurring in a gouty family, and after a period of eighteen months the patient gradually recovered to the point of reasonable health and capacity. After a period of six months of good health the patient began to deteriorate and manifested in the course of the second year what he considered to be typical progressive bulbar paralysis, and he thought the patient would soon succumb. After going through a period of exaggerated symptoms the patient again apparently recovered, in that the typical signs of bulbar paralysis disappeared; she regained facility of speech, was able to swallow, vision was improved, etc., and yet in the course of the next nine months she developed a distinct myasthenia without ptosis, but more or less insufficiency of the ocular muscles, together with profound asthenia of the bodily muscles, so much so that when she fell on the floor, as in rocking, she was unable to get up. The patient was large. She went through this period of profound asthenia without dystrophy, without paralysis of any sort, without atrophy of any groups of muscles, and developed later, in the course of a year—and by this time the case covered a period of four years—a typical bulbar paralysis, and died finally of acute edema of the lungs.

Dr. Daniel R. Brower said that he had seen two cases in which he had made a diagnosis of myasthenia gravis, although he had been in the habit of calling the disease asthenic bulbar paralysis. In both of the cases the myasthenia began with the third, fifth and seventh nerves, followed by general debility of

the whole muscular system, associated with slightly exaggerated patellar tendon reflexes that were easily exhausted. The electrical reactions were not determined. Muscular atrophy finally developed, the cranial nerves becoming involved, and the patient dying of bulbar paralysis.

The second case, which presented similar symptoms, recovered. In this case small doses of strychnia were used in conjunction with the constant galvanic current through the head, neck and spine.

DR. HAROLD N. MOYER had seen one case which he believes could be included in this category, but the clinical course was more rapid, the time of onset of the affection until the death of the patient being about four months. There were two distinct remissions. The paralytic trouble and myasthenia, which were most marked, began in the lumbar portion of the cord instead of the upper part, ultimately affected the upper portion of the cord, involving the respiratory center and followed by death.

The Kings County Medical Association.

Stated Meeting, October 9, 1900.

President DR. H. ARROWSMITH in the chair.

THE BIO-CHEMICAL BASIS OF PATHOLOGY.

DR. H. A. BUNKER read a paper with this title. He said that in 1898 he had read a preliminary communication on this subject before another medical society. We must go back of structure and form for the origin of disease; in other words, nutritional disturbances and perversions must antedate changes of structure from the normal. In the normal cell, the nucleus resembles in every respect morphologically, and as far as known, chemically, all other cell nuclei. The same number of chromatin filaments persist throughout. If there is any distinguishable difference in the nuclei, we must look into the material built up by the cell protoplasm. We are obliged to assume the existence of a selective affinity in the cell protoplasm for certain nutritive substances. The solution of the problems involving growth, waste and repair must rest on the quality of the building material required, the character of the structure to be built, and the means for disposing of waste products. Reference was made to the well-known Pasteur's medium for the culture of yeast cells, and special attention was called to the fact that the sugar in this medium undergoes a molecular change as shown by the change in its behavior when subjected to polarized light. This change, the speaker said, he had observed under many other conditions, and he believed it contained a clue to the solution of some of the deepest problems in biology. As in the yeast cell, so in all organic life there was abundant reason for believing that none of the food stuffs is used in the body as such, but only after having been subjected to complex dehydration and oxidation processes. Fats and carbohydrates are stored for use in emergencies as required by the organism. The ultimate fate of fat in the body is its splitting up into carbonic acid and water with the production of heat and energy, whether physical or molecular. This process is a continuous one, and occurs throughout living proteid substances. The particular character of a structure seems to be dependent on the predominant nitrogenous or fatty acid or group of fatty acids. Volatile fatty acids are apparently those which have not been built into proteids. Fat probably has its origin in the synthetic activity of protoplasm. Very little is known of the methods by which the stored-up fat is drawn upon and assimilated by the system when the emergency arises. Lymphoid cells are notably active in all the processes of anabolism, and it is probable that these cells bring about the necessary changes in the stored up fat to render the latter suitable for assimilation. All the tissues are supplied with lymphatic vessels and glands and lymph spaces, hence it is probable that the waste of one organ serves to provide the raw material for another organ. The waste products of each tissue or organ need not be the end-products of the body at all, but certainly are the antecedents of these. The different forms of pathological degeneration would seem to depend on imperfect hydrolysis. The amido acids are never found combined with glycerin as are the free acids themselves. Aldehyde is always a cleavage product of proteid decomposition. Like glycerin, and its derivatives, the fatty acids, the amido acids, are never found free under normal conditions. The speaker thought he had found that in the fibrosis which occurs in the healing of tuberculosis, amido-succinic or sparteic acid is present. Certain recent experiments seem to show that in tuberculosis succinic acid plays an important part. Dr. Bunker expressed his belief in the existence of asymmetric forces at the moment of liberation of organic products. Under physiological conditions, lines of cleavage, synthetic re-arrangements and sucessive oxidations follow a well-defined and symmetrical sequence. If these are disturbed, the result is a pathological process. If after normal cleavage imperfect oxidation takes place, or if after imperfect cleavage normal oxidation takes place, morphological changes will take place. On these theoretical considerations must depend largely the therapeutics of the future.

DR. JACOB FUHS said that one could not possibly follow life processes in disease without searching for a better understanding of the physiological. These had been brought forward in the paper. It should be remembered that each living cell of an organism is undergoing a constant change, a change which is particularly active in the protoplasm. The nucleus must also participate in the nutritional change, this cell being, as it were, an organism by itself so far as nutrition is concerned. We had just been told that the cell was even able to appropriate for its ends the fat stored up around it. Again, certain cells seem to conspire to help other particular cells. His attention had been directed to this by a study of the visual purple. This substance is probably intended to protect the very sensitive structures of the eye and assist in accommodation—at least that is the statement in the latest text-book on physiology. To him this explanation did not seem plausible, as it was known that the visual purple disappears at the time when protection is most needed. To his mind it was more reasonable to suppose that this visual purple plays a role similar to that of the stored-up fat. In the aromatics was to be found a substance which disturbs the nutrition of the cell, and leads to the production of uric acid. For the last few years the view has been held that the defect lay in the nucleus rather than in the protoplasm. According to this theory, albumoids can be given in uric-acid diseases as long as they do not contain xanthin, and the quanity is moderate. By cooking meat with cereals the aromatics are not formed as freely as by the ordinary method of cooking. Such meat is comparatively insipid, but the dangerous extractives have been for the most part eliminated.

DR. J. M. VAN COTT said that while the nuclei of all cells are alike originally, this equality does not continue. In a recent article, Kassowitz had claimed that the chemical activities are not restricted to the nucleus or the body of the cell, and even claimed that the connective tissue is just as vital as the nucleus. The enzymes are thought to be different in their nature, depending on whether they are in the cell or in the nucleus or in the connective tissue. He heartily agreed with the reader of the paper that morphology must now give way to the still higher branches, physiological and pathological chemistry. That this is the case was well exemplified by common experience in the laboratory that certain standard stains act in one way with normal tissues and in a different way with those which are the seat of pathological processes.

DR. BUNKER, in closing, said that he had characterized the nucleus as a selective and determining factor, its activity taking place not only throughout the protoplasm, but throughout the fluids bathing the tissues and cells.

The Cincinnati Academy of Medicine.

Regular Meeting, Oct. 1, 1900.

President Dr. C. L. Bonifield in the chair.

DR. R. B. HALL presented a specimen of multilocular fibroid tumor of the uterus, the greater part of one of the tumors of which had undergone calcification.

VERMIFORM APPENDIX ADHERED TO UTERUS.

Dr. A. W. Johnstone reported a case of a woman who had been afflicted with severe dragging pain on walking. This had annoyed her so greatly that she had herself demanded operation, though nothing could be found on examination to warrant operative interference. Section had disclosed an adherence of the end of the appendix to the uterus, and the former was put on the stretch with every movement of the body.

ETIOLOGY AND PATHOLOGY OF CARCINOMA.

Dr. Frank E. Fee stated that a lack of knowledge of the cause of cancer was the great obstacle to a proper cure; that it was thus rendered the most dreaded of all diseases. Not only was it greatly feared, but rightly so, as, according to Roswell Park's statistics, the disease was so rapidly increasing that if it continued at its present rate of rapidity in 1909 there would be more deaths from cancer in the State of New York than from tuberculosis, smallpox and typhoid fever combined. He then reviewed Cohnheim's theory of embryonic remains, but personally was inclined to reject it as not fitting all the facts, in other words, "not proven." The points of complicated development, the lips, tongue, pyloric and cardiac ends of the stomach, were also the parts of the economy subjected to the greatest irritation. He was inclined to accept a parasitic origin of the disease for the following reasons: Malignant growths present a close resemblance to certain of the infectious diseases—such as tuberculosis—in their obscure origin, tendency to spread locally, and dissemination by lymph and blood paths; the occurrence of secondary deposits in various parts of the body; that they often follow an injury or blow, or at the site of an old cicatrix, that is to say, a point where physiological resistance is below par; the existence of a toxemia, as shown by fever and cachexia, and often out of proportion to the size and situation of the tumor.

He called attention to the recent investigations in England, in which certain portions of the country had been mapped out where cancer was particularly present; these were known as cancer fields, and were usually situated in the low lands, on the banks of sluggish streams, as well as those subjected to frequent floods. This observation, he thought, might at some future time, be of considerable value. The essayist then described at some length the announcement of alleged discoveries of a parasite of cancer and laid particular stress on the reports of the New York Laboratory. Then followed a description of the parasite and the various methods of fixing and staining according to his own observations and those of Plimmer. Experiments in cultivating the parasite have not been entirely satisfactory. Both Plimmer, of England, and Park, of New York, claim to have succeeded. Their cultures inoculated into guinea-pigs produced death in from fifteen to twenty days. The peritoneum, into which the cultures were injected, was found studded with small transparent nodules, as were most of the other internal organs. Microscopically they were of endothelial origin. The cells were found to contain the organism. The production of cancer has not been satisfactory when these organisms have been brought into contact with epithelial surfaces. To cultivate the organism cultures of ordinary beef infusion are made to which is added after careful neutralization 2 per cent. of glucose and 1 per cent. of tartaric acid. Into this very small pieces of the growth, cut with all possible precautions against contamination, were placed, and the tubes put immediately under anaerobic precautions, the air being exhausted and hydrogen substituted for it. In conclusion the essayist stated "At present I am not prepared to state fully the results of my investigations in this line, but will say that I have only twice failed to find these bodies described, and that I have never found them in any other tissue than cancerous. I have always failed in cultivating the parasite to my own satisfaction. While I agree that the parasitic theory of cancer can not be accepted until it is unmistakably proved that a malignant growth can be produced by an organism isolated from a cancer, it is to be hoped that work in this line will be continued so that collective investigation can be well established. It is my intention to bring this subject before the Academy in the near future, and I hope to at least assist to establish the claims made by other observers in regard to cultivation and inoculation.

The paper was discussed by Drs. A. Friedlander, J. Ransohoff, Joseph Eichberg, A. Freiberg and A. W. Johnstone.

EARLY DIAGNOSIS OF CANCER OF THE UTERUS.

Dr. John P. Miller stated that the principal symptoms were hemorrhage, pain, discharge and cachexia; that hemorrhage was the first symptom to present itself. It usually attracts attention in a woman who has been menstrating normally as a slight show of blood, occurring after violent exercise, a severe jar, or especially after coitus, rather than as an increase in frequency or profuseness of the menstrual flow. In women who have ceased menstruating the reappearance of the flow may lead them to the belief that this function is being reestablished. It is unfortunate that the hemorrhage is not more severe in the early stages, as in this case the woman would be more likely to consult her physician, and her condition be diagnosed while yet in a comparatively early stage. The hemorrhage which first occurs in cancer of the uterus, like the early hemorrhage produced by fibroid comes from the accompanying hypertrophic endometritis, and not as the result of ulceration. Pain is the next symptom to manifest itself, but it does not become prominent until the disease has made considerable headway. The severe pains we are accustomed to associate with carcinoma uteri are produced by the efforts of the uterus to expel clotted blood and detritus, by involvement of the peritoneum and by pressure on the nerves of the pelvis, conditions that do not exist in the early stages of the disease. Pain, as a rule, manifests itself in the sacral or lumbar region. It usually differs in no way from that produced by other uterine disease, but occasionally occurs in paroxysms at certain times of the day, and this paroxysmal pain is a diagnostic symptom of some importance when present. Early in the disease the discharge is leucorrheal, of endometrial origin, and not distinctive; later it becomes thin, watery, irritating and fetid. Cachexia, as a rule, is the last of these cardinal symptoms to appear. The essayist then called attention to the value of the microscope in the early diagnosis of the disease.

He stated that carcinoma uteri usually took its origin from one of three places: The portio, the cervical canal and the body of the uterus. Carcinoma of the portio is either of the pavement epithelial variety or the cylindrical-celled variety, and has to be differentiated from decubitus ulcer, erosion, tuberculosis, chancre and chancroid. An elaborate table for the differentiation of these diseases followed. Cancer of the cervical canal is the most frequent of all cancers of the uterus. The varieties are the same as in cancer of the portio, but more frequently cylindrical. Cancer of the body of the uterus is the least frequent of uterine cancers, and develops either from the epithelium of the glands in the mucous membrane or from the epithelium between the glands.

Microscopically we can distinguish three forms of cancer in the body of the uterus, the malignant adenoma, the adenocarcinoma and the simple carcinoma. The essayist then reported a case that had presented itself at his clinic last winter. The patient was 32 years of age, the mother of several children, stout and well-nourished; complained of pain in the back, leucorrhea and excessive menstruation. On examination, the cervix was found normal, the uterus itself somewhat enlarged, freely movable, but could not be freely palpated on account of the thick abdominal wall. She was sent to the Good Samaritan Hospital and curettage performed. Microscopical examination showed the scrapings to be from an adenoma-carcinoma (a specimen was shown under the microscope by the essayist). A subsequent hysterectomy showed a cancer about the size of a ten-cent piece situated on the posterior wall of the uterus. Cancer of the body of the uterus is to be differentiated from hypertrophic endometritis with enlargement of the uterus, from subinvolution, from sloughing fibroid and from retained products of conception.

The paper was discussed by Drs. R. B. Hall, C. D. Palmer, S. P. Kramer, Whittacre and Brown.

Therapeutics.

To Abort Pneumonia.

℞ Acetanilidi ..... ʒi 4
Pulv. opii et ipecacuanhæ ..... gr. xxxvi 2|40
M. Ft. chartulæ No. xii. Sig. One powder every four hours, day and night.

J. Paffrath, in *Deutsche Med. Zeit.*, states that he has never failed to abort the beginning of pneumonia in from five to six days with the above treatment. He goes on the basis that pneumonia is not of bacterial origin. He orders the powders stopped as soon as the temperature drops.

Epileptiform Convulsions Due to Autointoxication.

℞ Ext. chiratæ ..... gr. ii |12
Leptandrin ..... gr. ss |03
Podophyllin ..... gr. 1/5 |012
Creosoti (beechwood)
Euonymin, ää ..... gr. ss |03
M. Ft. pil. No. i. Sig. One such after each meal.
—Hare: *Medical Record.*

Urticaria.

℞ Ethylis alcoholis
Etheris sulphurici
Chloroformis, ää ..... ʒi 32
Mentholis ..... gr. ii |12
M. Sig. Apply as a lotion. —Gaucher: *Med. Record.*

Seminal Emissions With Erections.

℞ Strychninæ sulphatis ..... gr. i |06
Acidi phosphorici diluti ..... ʒii 64|
M. Sig. Twenty-five drops in water after each meal.
—B. K. Twitchell.

Blueberry in Intestinal Inflammations.

℞ Ext. myrtillus berries ..... ʒi 32|
Potassii carbonatis ..... gr. xlv 3|
Aquæ destil. ..... ʒiss 6|
Cacao butter ..... ʒii 64|
M. Ft. suppos. No. xxx. Sig. Two to be used daily.

Dr. H. Strauss, in *N. Y. Med Jour.*, recommends this combination as an astringent in intestinal inflammations.

Amenorrhea.

℞ Strychninæ sulphatis ..... gr. iss |1
Acidi oxalici ..... gr. viiss |5
Ferri peptonatis
Manganese lactatis, ää ..... ʒii 8|
Ext. colocynthidis comp ..... gr. xxx 2|
M. Ft. capsulæ No. lx. Sig. One capsule three times a day, after meals. —H. C. Bloom.

Hemorrhoids With Pain.

℞ Morphinæ sulphatis ..... gr. vi |4
Cocainæ muriatis ..... gr. xii |75
Hydrargyri chloridi mitis ..... gr. xl 2|66
Vaselini ..... ʒi 32|
M. Sig. Apply locally night and morning.

Sawyer states that this combination is the best local application that can be made when pain is present. If itching is present, or in cases of pruritis, he recommends:

℞ Menthol ..... ʒss to ʒi 2-4|
Vaselini ..... ʒi 32|
M. For local application, night and morning.

Cough of Influenza.

℞ Sodii benzoatis ..... ʒi 4|
Bromoformi ..... m. x |66
Syrupi tolutani ..... ʒi 32|
Syrupi lactucarii ..... ʒiii 96|
M. Sig. One tablespoonful every four hours.
—Le Moine: *Bul. of Ther.*

Ringworm.

℞ Epicarin
Talci veneti
Amyli, ää ..... ʒi 4|
Vaselini ..... ʒiii 12|
M. Ft. unguentum. Sig. For external use.
—*Jour. de Med. de Bordeaux.*

Anaphrodisiac.

℞ Lupulini ..... ʒiiss 10|
Ft. capsulæ No. xv. Sig. One capsule at bedtime.
—*Med. Times and Gazette.*

Dental Caries.

℞ Acidi carbolici
Essentiæ limonis, ää ..... ʒi 4|
Alcoholis ..... ʒv 20|
M. Sig. Wash and dry the cavity; soak a small pledget of cotton in this solution and insert into the tooth cavity and cover with tincture of benzoin on cotton.
—*Gaillard's Med. Journal.*

Malarial Cachexia.

℞ Quininæ sulphatis ..... ʒi 4|
Tinct. ferri chloridi ..... ʒv 20|
Liquoris acidi arsenosi ..... ʒiss 6|
Potassii chloratis ..... ʒi 4|
Syrupi zingiberis, q. s. ad ..... ʒiv 128|
M. Sig. One teaspoonful, in water, three times a day.
—Dr. Guice: *Med. Fortnightly.*

Acute Nephritis in Children.

℞ Tinct. aconiti ..... ʒss 2|
Codeinæ ..... gr. ii |12
Potassii citratis ..... ʒiii 96|
Glycerini ..... ʒii 64|
Aquæ cinnamomi, q. s. ad ..... ʒviii 256|
M. Sig. One teaspoonful every two hours in half a glass of pure water.
—Danforth: *Amer. Text-Book of Dis. of Children.*

Acute Catarrhal Laryngitis in Children.

℞ Tinct. aconiti ..... gtt. viiss |5
Sodii benzoatis ..... ʒss 2|
Cherry laurel water ..... ʒiiss 10|
Syrupi codeinæ—gr. 1 per ʒ ..... ʒii 8|
Syrupi aurantii ..... ʒv 20|
Mucilaginis acaciæ, q. s. ad ..... ʒiv 128|
M. Sig. One to two teaspoonfuls every hour, according to the age. —Perier: *Pediatrics.*

Irritability of the Bladder After Delivery.

℞ Salol
Tinct. hyoscyami, ää ..... ʒii 8|
Infusi buchu, q. s. ad ..... ʒvi 192|
M. Sig. Shake. One teaspoonful three times a day.

℞ Liquoris potassæ ..... ʒi 4|
Mucilaginis acaciæ ..... ʒss 16|
Tinct. hyoscyami, q. s. ad ..... ʒii 64|
M. Sig. One teaspoonful three times a day.—Fothergill.

Constipation in Children.

℞ Sodii bicarbonatis ..... ʒiii 12|
Pulveris rhei ..... ʒii 64|
Sodii sulphatis ..... ʒi 32|
Olei menthæ piperitæ ..... gtt. xx 1|33
M. Sig. One-half to one teaspoonful of this powder may be given in the morning before breakfast.

℞ Mannæ ..... ʒi 32|
Magnesiæ—calcined
Sulphuris sublimati, ää ..... ʒii 64|
Mellis ..... ʒi 32|
M. Sig. From a teaspoonful to a tablespoonful dissolved in a cup of hot milk, night and morning. —*Jour. des Prac.*

To Lessen Labor Pains.

℞ Lactis ..... fl ʒi 32|
Chloralis hydratis ..... gr. xxx 2|
Aquæ destil. ..... ʒi 32|
M. Sig. To be used as an enema during the first stage of labor. —*Monthly Encyc. of Med.*

Early Cough and Fever in Pneumonia.

℞ Potassii citratis ..... ʒvi 24|
Spts. etheris nitrosi
Tinct. opii camphoratæ, ää ..... ʒiv 16|
Liq. potassii citratis, q. s. ad ..... ʒvi 192|
M. Sig. One dessertspoonful every three hours.
—Hughes: *St. Louis Clinique.*

Acute Pharyngitis.

R.	Tinct. aconiti	m. vi	36
	Sodii salicylatis	3ii	8
	Aquæ menthæ viridis	3iii	96

M. Sig. One teaspoonful, undiluted, every hour.

Of use in acute pharyngitis with moderate fever.

To Keep the Hands in Good Condition.

R.	Olei rosæ	m. xv	1
	Glycerini	3i	4
	Spts. myricæ	3iii	12
	Olei cajuputi	m. xx	1 33

M. Sig. Apply to the hands before retiring, first washing them thoroughly in hot water. —*Calif. Med. Journal.*

Phosphaturia.

R.	Ammonii benzoatis	3iv	16

Place in cachets No. xxiv. Sig. One cachet after meals.

Indications—In phosphaturia with ammoniacal urine.

—*Dominion Med. Monthly.*

Expectorant Mixture.

R.	Ammonii chloridi	3i	4
	Potassii chloratis	gr. xxiv	1 66
	Ext. glycyrrhizæ	gr. xxx	2
	Spts. etheris nitrosi		
	Syrupi senegæ, ää	3ii	8
	Aquæ cinnamomi, q. s. ad	3ii	64

M. Sig. One teaspoonful every four hours.

—*Druggist and Review.*

Gonorrheal Epididymitis.

R.	Methyl salicylatis	3i	32
	Olei olivæ	3ii	64

M. Sig. Apply to the scrotum and protect by gutta percha paper and a suspensory bandage.

Bettman advocates the above treatment and advises the change of dressings every two hours. That the salicylate is absorbed is proved by the urine. —*Med. Age.*

Ocular Neuralgia.

R.	Morphinæ sulphatis	gr. iv	25
	Chloralis hydratis	gr. x	66
	Cocainæ hydrochlor.	gr. xx	1 33
	Menthol	gr. xxx	2
	Lanolin	3i	32

M. Sig. Apply a piece the size of a hazel-nut to the temple and over the brow every hour until relieved. —Fox.

Nasal Obstruction in the Newborn.

R.	Resorcin	gr. xv	1
	Olei vaselini	3iss	48

M. Sig. Drop three or four drops into the nares three or four times a day.

Or,

R.	Sodii biboratis	3iss	6
	Glycerini	3i	32

M. Sig. Hold the head well back and allow three or four drops to enter the nares on either side and repeat two or three times during the day.

M. Leopold Cheauveau states that when acute coryza is the cause of nasal obstruction in the newborn he has found the above to be very efficient. —*Practitioner.*

To Prevent Loosening of the Teeth.

R.	Acidi tannici	3ii	8
	Tinct. iodi	3i	4
	Potassii iodidi	gr. xv	1
	Tinct. myrrhæ	m. lxxx	5 33
	Aquæ rosæ	3vi	192

M. Sig. A teaspoonful in water to rinse the mouth every two hours. —*Practitioner.*

Taenifuge.

R.	Acidi salicylici	gr. viss	4
	Oleoresinæ aspidii	gr. x	66
	Olei cinnamomi	m. x	66
	Gum arabici	3ii	8
	Aquæ	3ii	64
	Syrupi simplicis, q. s.	3iii	96

M. Sig. To be taken in two doses before breakfast.

—*Phar. Post.*

Cleansing of Teeth.

R.	Pulveris cereal	3iiss	10
	Sodii boratis	gr. xxxvi	2 4
	Potassii chloratis	gr. xv	1

M. Flavor with orris and menthol. Sig. For cleaning teeth.

Dr. Fletcher, in the *Cincinnati Lancet-Clinic*, states that the object is to keep the saliva decidedly alkaline for some time after using and to counteract the ill effects of sweets. It is preservative and antiseptic and will retard decay.

Anemia With Dysmenorrhea and Constipation.

R.	Ferratini	3ii	8
	Pulv. rhei radicis	3iv	16
	Sodii bicarb.	3ii	8
	Ol. fœniculi	gtt. xxx	2

M. Sig. Take a teaspoonful at night, in a wafer or dry on the tongue, and wash down with water. —*Med. Fortnightly.*

Ferratin is an organic compound of iron made from the liver of the hog.

Medicolegal.

May Refresh Memory on Question of Age.—The Supreme Court of California holds, in People vs. Vann, a prosecution for an assault with intent to commit rape on a female under the age of consent, that, where a physician was called as a witness and stated that he attended the mother of the girl at the time of the latter's birth, it was proper to allow him to refresh his memory as to the date of her birth, so as to show her age at the time of the alleged assault, by an entry in his cash book, he having testified that he made the entry at the time he attended the mother at the birth of the girl, and that by the entry he knew the date of her birth.

Number of Expert Witnesses Not Controlling.—Numbers in experts, the second appellate division of the Supreme Court of New York declares, in the same of Simonsen vs. the Brooklyn Heights Railroad Company, are not more controlling than numbers in ordinary witnesses. Where they advance two opposing theories, it is the function of the jury it says to decide between them. Nor is it concerned here about whether the jury thought that the opinions of the plaintiff's physicians were colored by professional partisanship, or were unfounded on the facts, or were exaggerated, or were those of alarmists, and that the opinion of the opposing physician was the wisest or was more warranted by the facts. There was conflicting evidence and there was clash of opinion, and the court holds that it was not called upon to upset the result by the test that, if it had been sitting as a jury, it would have returned a different verdict.

A Large Award for Injuries to Boy.—A boy 11 years of age, who lived with his widowed mother and was attending a public school in the neighborhood of her residence, was run over by a street car. He was so badly injured by the accident that he was compelled to suffer two amputations—the first, removing the lower portion of the left leg at a point about three inches below the knee-joint, and the second operation destroying the knee-joint and all below it. An action for damages followed, which resulted in a verdict for $22,500. Complaint was made that this was excessive, but the second appellate division of the Supreme Court of New York holds otherwise, Williamson vs. Brooklyn Heights Railroad Company. In support of this, it says that it is manifest that the pain resulting from the injury and following the two amputations was extreme, and that the permanent disability arising from the loss of his leg will put the boy at a serious disadvantage, physically, when he arrives at manhood and enters into the competition of life. Besides, it says, as large verdicts as this for similar injuries to children have in some other cases been sustained.

Between Buyer and Seller of Medical Practice.—A physician contracted to deliver certain real estate and the good-will of his business, so far as such good-will could be delivered. To better accomplish this latter object, he agreed to form with

the purchaser a partnership for a stated period, to introduce him to his patrons, to send him to answer all calls possible, and to himself attend such cases as he might be personally insisted on attending. Now, these obligations of the seller, as to the real estate and the good-will, the Supreme Court of Illinois holds, case of Tichenor vs. Newman, were personal to the purchaser, and their non-performance vested a right of action in him. Consequently, he could sue, in an action at law, for a breach of contract, and need not resort to a court of equity for an accounting under the general rule that one partner can not sue another at law except for a balance struck and a promise to pay. Likewise, the seller having guaranteed that the earnings of the co-partnership would reach a specified sum, the court holds that guaranty enforceable in an action at law, and without any investigation of the state of accounts between the two as partners. But the purchaser, it holds, must allege compliance on his part with the obligations of the contract, or allege facts excusing such performance. And, the agreement making it incumbent on the purchaser to use his best efforts to promote the interests of the partnership, and the undertaking of the seller to guaranty that the earnings and receipts of the firm were injuriously affected, was competent based in part on compliance on the part of the purchaser with this agreement of his, the court holds that evidence tending to show that the purchaser did not use his best efforts to promote the interests of the partnership, or that he engaged in the transaction of other business, whereby the earnings and receipts of the firm were injuriously affected, was competent to be considered. Moreover, the court holds that the purchaser could not be permitted to testify to conversations which, as he alleged, occurred between himself and the seller prior to the execution of the contract as to the value of the practice of the seller, because all prior statements were merged, as it were, in the writing, and the guaranty incorporated therein became the measure of the liability of the seller with respect to the value of such medical practice. The court also holds that it was not essential to the right of the purchaser to maintain his action for breach of contract that he should affirmatively show that he held a license from the State Board of Health authorizing him to practice medicine and surgery in the state, because the relation of physician and patient did not exist between the parties, and the action was not for the recovery of the fees or the charges of a physician.

Classification of Consumption.—The Michigan statute involved in the case of People vs. Shurly requires that, "whenever any physician shall know that any person whom he is called to visit, or who is brought to him for examination, is infected with smallpox, cholera, diphtheria, scarlet fever, or any other disease dangerous to the public health, he shall give immediate notice thereof to the health officer of the township, city or village in which such person may be; and to the householder, hotel-keeper, keeper of a boarding-house, or tenant within whose house or room the sick person may be," etc. To recover the penalty prescribed for a violation of this provision this action was brought. On the trial it was agreed by counsel for the respective parties that the only question in the case was whether consumption was covered by this provision. The circuit judge ruled, for the purposes of the case, that the statute was not intended to cover consumption, and ruled out testimony offered to show that consumption is a disease dangerous to public health. The Supreme Court of Michigan holds that this was error, reverses the judgment of the lower court, and orders a new trial. The position of the defendant's counsel, as stated in his brief, was that the general clause, "or any other disease dangerous to the public health," was intended to include other diseases of the same degree of infectiousness or danger to life, though not specifically naming them; that the general clause would include yellow fever, leprosy, bubonic plague, and typhus fever. For, he said, it is common knowledge that those diseases partake of the same violent degree of infectiousness as those mentioned in the statute. And the supreme court says that the rule was correctly stated that where a statute, after enumerating specific cases, uses a general term to cover others, the latter are understood to be of the same general character, sort, or kind as those specified. But, while it recognizes this rule, it says that it did not determine this case, for the reason that, if consumption is a disease dangerous to the public health, it is of the same general character, sort, or kind as those specifically enumerated in the sense in which the legislature characterized those diseases, i. e., diseases dangerous to the public health. If there was a distinct dividing line of danger, of which courts might take judicial notice, a different view, it suggests, might be held, but there is, it declares, no such line. The court cannot judicially know what are the varying degrees of infectiousness of different diseases. There is no line which can be drawn other than the line between diseases dangerous to the public health and those which are not. Wherefore, it holds that the question raised in this case of whether consumption is a disease dangerous to the public health was to be determined on evidence, and should have been submitted to the jury. Because this was not done, there must, it holds, be a new trial.

Current Medical Literature.

Titles marked with an asterisk (*) are noted below.

New York Medical Journal, October 13.

1 Hypertrophy of the Turbinated Bodies, and Their Relation to Inflammation of the Middle Ear, with Report of Fifteen Hundred Operations. (Continued.) Christian R. Holmes.
2 Dilatation of the Colon. H. G. Marxmiller.
3 *On the Employment of the Upright Position in Ether Operations Upon the Nose, Throat and Ear. Thomas B. French.
4 *The Present State of Our Knowledge Concerning the Cause, Nature, and Treatment of Asthma. (To be Concluded.) Walter A. Wells.
5 The Future of Specialties. Charles B. Kelsey.
6 *The Etiology of Pulmonary Tuberculosis, Its Cause and Termination. S. A. Knopf.

Philadelphia Medical Journal, October 13.

7 General Summary of the Cases of Typhoid Fever Treated in the Johns Hopkins Hospital for Ten Years. William Osler.
8 *A Review of the History of Cardiac Pathology, with Especial Reference to Modern Conceptions of Myocardial Disease. Alfred Stengel.
9 *Fracture of the Carpus. G. G. Ross and M. I. Wilbert.
10 *Some Phases of the Tuberculosis Problem in Colorado. S. G. Bonney.
11 Rupture of Symphysis Pubis During Parturition, with Report of Case. G. A. Himmelsbach.
12 *Concerning Calentura. Frank W. Foxworthy.
13 Appendicitis: Pin in Appendix—Abscess of Liver—Purulent Peritonitis—Death. E. H. Trowbridge.

Boston Medical and Surgical Journal, October 11.

14 Modification of Milk in Milk Laboratories. T. M. Rotch.
15 Breast Feeding. A. Worcester.
16 *Home Modification of Milk. Charles W. Townsend.
17 Lesion of Chiasm: Temporal Hemiopia. Optic Atrophy: Probable Pituitary Tumor, with Giantism and Defective Development (Preliminary Report). S. A. Lord.

Medical News (N. Y.), October 13.

18 Cocain Anesthesia by Lumbar Puncture: Two Cases of Hysterectomy. J. Riddle Goffe.
19 *A Consideration of Finger Infection with Special Reference to the Joints and Tendons Ellsworth Eliot, Jr.
20 *The Prevention and Treatment of "Colds." W. Scheppegrell.
21 *Treatment of Rheumatism and Some Phases of Indigestion: Gouty Diathesis. Charles E. Page.

Medical Record (N. Y.), October 13.

22 *Medullary Narcosis (Corning's Method): Its History and Development. L. Marcus.
23 *The Modern Treatment of Pulmonary Tuberculosis. M. J. Brooks.
24 *A Consideration of the Anatomical Construction Predisposing to Inguinal and Femoral Hernia, and the Measures to be Taken in Securing their Radical Cure. Irving S. Haynes.
25 *Light as a Remedial Agent. J. W. Kime.

Cincinnati Lancet-Clinic, October 13.

26 *The Curability of Inebriety by Medical Treatment. T. D. Crothers.
27 Formaldehyde as Represented by the Preparation Known as Cystogen in Genito-Urinary Diseases. Henry J. Scherck.

St. Louis Medical Review, October 13.

28 *The Curability of Inebriety by Medical Treatment. T. D. Crothers.
29 Subarachnoidean Injection of Cocain as a Substitute for General Anesthesia in All Operations Below the Diaphragm. Edward Wallace Lee.

American Practitioner and News (Louisville, Ky.), October 1.

30 Iritis: Causation, Diagnosis, Prognosis and Treatment. M. E. Coomes.
31 The Use of Normal Salt Solution in Medicine and Surgery. Ed. Smith.
32 Gunshot Wound of the Abdomen. J. V. Prewitt.
33 Famous Physicians of the Past in Louisville. T. B. Greenley.

Virginia Medical Semi-Monthly, September 21.

34 The Physician's Influence in Revaccination in Schools. Helen C. Putnam.
35 The Late Drs. L. A. Sayre and Hunter McGuire. A. M. Phelps.
36 The Physician's Home—Why Needed and Why Worthy. Jno. S. Harris.
37 *The Diagnosis of Ectopic Pregnancy Before Rupture, Based on Eleven Cases. J. F. Baldwin.

Medical Age (Detroit), October 10.

38 *Formaldehyde as a Milk Preservative. A. G. Young.
39 Neurasthenia; with Report of Cases. F. S. Smith.

Illinois Medical Journal, October.

40 Rectal Fistula. A. E. Halstead.
41 *Nephritis with Report of Three Cases. J. W. Kelly.
42 *Chronic Gastritis. Jas. Brayshaw.
43 Sterility in the Male. Emil Ries.
44 The Spanish-American War as Seen by the Military Surgeon. Allen A. Wesley.

Medicine (Detroit), October.

45 *Some General Considerations in the Treatment of Hysteria and Neurasthenia. B. C. Loveland.
46 *An Etiological and Clinical Consideration of Graves' Disease (Exophthalmic Goiter). Frank P. Norbury.
47 Examination of the Stomach Contents. F. A. McGrew.
48 *Longevity of the Literary Female. E. C. Spitzka.

Pennsylvania Medical Journal, October.

49 Address before the Medical Society of the State of Pennsylvania. George W. Guthrie.
50 Address in Medicine. Thomas Turnbull, Jr.
51 Medical Education. Edmund W. Holmes.
52 A Case of Jamaica Ginger Amblyopia. Edward Stieren.
53 Diarrheal Affections of the Summer Season. F. C. Stahlman.
54 On the Relation of Diseases of the Eye to those of the Teeth. N. J. Weill.
55 Bright's Disease. B. F. Brubaker.

Ophthalmic Record (Chicago, September.

56 *The Prenatal Degeneracy of the Eye. Lee Wallace Dean.
57 Chip of Iron in Eye. Examination with Fluoroscope Negative, With Sideroscope Positive, Eye Enucleation. Sympathetic Ophthalmitis Sixteen Days Later. Recovery. Exhibition of Sideroscope. Wm. C. Bane.
58 Total Cilicotomy. M. F. Weymann.

Journal of Cutaneous and Genito-Urinary Diseases (N. Y.), October.

59. *The Etiology and Pathology of Malignant Diseases of the Skin Affecting the Epithelial Tissues. M. B. Hartzell.
60 *Recurrent Epididymitis. Charles H. Chetwood.
61 *The Treatment of Malignant Diseases of the Skin. Francis Shepherd.

Journal of Experimental Medicine (N. Y.), October 1.

62 *Poliferation and Phagocytosis. F. B. Mallory.
63 A Contribution to Staining Methods. F. B. Mallory.
64 *A Study of the Neurofibrils in the Ganglion Cells of the Cerebral Cortex. Stewart Paton.
65. *An Experimental Study of Oxaluria, with Special Reference to Its Fermentative Origin. Helen Baldwin.
66 *Serum-Globulin and Diphtheritic Antitoxin—A Comparative Study of the Amount of Globulin in Normal and Antitoxic Sera, and the Relation of the Globulins to the Antitoxic Bodies. Philip M. Hiss, Jr., and James P. Atkinson.
67. *The Fractional Precipitation of the Globulin and Albumin of Normal Horse's Serum and Diphtheria Antitoxic Serum, and the Antitoxic Strength of the Precipitates. James P. Atkinson.
68. *Refractory Subcutaneous Abscesses Caused by Sporothrix Schenckii. A New Pathogenic Fungus. Ludvig Hektoen and C. F. Perkins.
69 Pathologic Report of a Case of Dermatitis Vesiculo-Bullosa et Gangrenosa Mutilans Manuum (Duhrung), With a Consideration of the Relations of Vascular and Nervous Changes to Spontaneous Gangrene and Raynaud's Disease. William G. Spiller.

New Yorker Medicinische Monatschrift, September.

70. Trophische Storungen bei Lungentuberculose; ein Beitrag zur Symptomatologie dieser Erkrankung. Henry Herbert.

Occidental Medical Times (San Francisco), October.

71 The Diagnosis of Empyema of the Accessory Nasal Cavities. Robert D. Cohn.
72 Clinical Lecture—Plague. Wm. Watt Kerr.
73 Two Cases of Myotonia, or Thomsens' Disease, Occurring in the Same Family. Jno. T. Jones.
74 Glomerular Nephritis With Membranous Vulvitis—Post-mortem Findings. Elizabeth E. Keys.
75 The Treatment of Pneumonia. Edward N. Ewer.
76 Some Experiences of a Volunteer Surgeon in the U. S. Army. W. J. Hanna.
77 The Treatment of Pulmonary Tuberculosis. G. W. Fuller.

American Journal of the Medical Sciences (Philadelphia), October.

78 *Primary Splenomegaly—Endothelial Hyperplasia of the Spleen—Two Cases in Children—Autopsy and Morphologic Examination in One. David Bovaird, Jr.
79 *Primary Echinococcus Casts of the Pleura. Charles Cary and Irving P. Lyon.
80 Sarcoma and Cirrhosis of the Liver. W. W. Ford.
81 Report of a Case of Melena Neonatorum Due Apparently to an Infection by the Bacillus Pyocyaneus. William R. Nicholson, Jr.
82 Distortion of the Aorta in Pott's Disease. Thomas Dwight.
83 *The Value of the Pediculed Flaps in Injuries of the Hand. W. E. Schroeder.
84 *Internal Hydrocephalus Following Cerebrospinal Meningitis. Elliott P. Joslin.
85 A Critical Summary of the Literature on the Diagnostic and Therapeutic Value of Lumbar Puncture. Alfred Hand, Jr.

Kansas City Medical Record, September.

86 Smallpox. E. E. Gilmore.
87 A Study of the Diagnosis and Pathology of Tabes Dorsalis in Synopsis. S. Grove Burnett.
88 Posterior Cortical Cataract. Hugh Miller.
89 A Familiar Clinical Picture. Milton P. Creel.

Brooklyn Medical Journal, October.

90 *Observations on the Obstetric Surgery of Pelvic Contraction. Chas. Jewett.
91 The Medical Faculty as Factors in History—An Address Given April 17, 1900. Homer L. Bartlett.

Indiana Medical Journal, October.

92 Medical Practice in Relation to the Law. J. B. Kenner.
93 Notes from the Pathologic Laboratory of the Central Indiana Hospital for the Insane. John S. Briggs, Jr.
94 Abscess of Brain Without History of Symptom Before Entrance to Hospital. Walker Schell.

St. Louis Courier of Medicine, September.

95 *Contribution to Our Knowledge of Hemolysins. C. Fisch.
96 The Bladder as a Cause of Dystocia. Armand Derivaux.
97 Report of a Case of Purpura Rheumatica. M. A. Bliss.
98 The Use of the Angiotribe; Or, The Removal of the Uterus and the Appendages Without Ligatures. C. R. Dudley.
99 Coxa Vara. J. A. Steele.

Toledo Medical and Surgical Reporter, October.

100 Report of a Case of Spasmodic Asthma and Bronchitis. David P. Jackson.
101 Reflex Neurosis from Disturbed Visceral Mechanism. The Dominating Influence of the Genitals. Byron Robinson.
102 The Palliative Treatment of Hemorrhoids. H. G. Thomas.

Medical Council (Philadelphia), October.

103 *Common Food Adulterations. A. H. P. Leuf.
104 The Telephone in Country Practice. J. Beverly Deshazo.
105 Preliminary and Minor Railway Surgery. J. M. Salmon.
106 On Suggestive Therapeutics, Magnetic Healing and Osteopathy. T. H. Line.
107 Treatment of Diseases of the Nose, Throat and Ear by the Family Physician. E. B. Gleason.

Providence Medical Journal, October.

108 The Medical Library as a Factor in Medical Progress. George D. Hersey.
109 The East Providence Filter. Charles V. Chapin.
110 Tetanus. Arthur Hollingworth.
111 Electricity as a Therapeutic Agent. Francis B. Carleton.
112 The Hand as an Index in Disease. Edward E. Pierce.
113 A Brief Account of the Work of the Providence Lying-In Hospital During the Fifteen Years of Its Existence. Halsey De Wolf.

Cleveland Journal of Medicine, October.

114 *The Use of the X-Ray and Electromagnet in Locating and Removing Foreign Bodies from the Vitreous Humor. Albert R. Baker.
115 Polypi in the Nasopharynx. J. M. Ingersoll.
116 *The Surgical Treatment of Hemorrhage Occurring in Ulcer of the Stomach and Duodenum. Ralph J. Wenner.
117 *Right Subclavian Artery Passing Behind the Trachea and Esophagus—Other Anomalies. C. A. Hamann.
118 A Case of Hemorrhagic Diathesis. F. P. Russell.
119 Dissecting Aneurysm of the Aorta With Rupture Into the Pericardial Sac. W. T. Howard, Jr.

New England Medical Monthly (Danbury, Conn.), October.

120 The Essential Factors for the Cure of Inguinal Hernia in the Male. Henry O. Marcy.
121 Non-Penetrating, Penetrating, Contusive, Lacerating and Gunshot Wounds of the Rectum. Thomas H. Manley.
122 Treatment of Diarrhea of Children. Wm. H. Dukeman.
123 A Unique Hysterectomy. Frank Blaisdell.
124 Chronic Nasal Catarrh. W. E. Weed.
125 Observations on the Technique of Lavage. John T. Howell.
126 Physiatrics. Charles P. Robbins.
127 Favorable Effect of an Intercurrent Disease on Meningeal Inflammation. J. B. Stair.

Medical Standard (Chicago), October.

128 Typhoid Fever, Its History and Etiology. J. T. Moore.
129 Tertiary Syphilis. William S. Gottheil.

130 Bromid of Ethyl. Alme P. Heineck.
131 Herpes Zoster and Acne Rosacea. A. Memelsdorf.
132 Some Acute Respiratory Affections. Wm. F. Waugh.
133 The Modern Treatment of Pulmonary Tuberculosis. M. J. Brooks.

International Journal of Surgery (N. Y.), October.

134 Treatment of Appendicitis. James B. Morgan.
135 Organotherapy in Gynecologic Therapeutics. Harvey P. Jack.
136 A Brief Note on Anesthetics and Analgesics, When Utilized in Traumatisms of the Extremities. Thomas H. Manley.
137 The Surgeon and the Army. Ira P. Smith.
138 Cervix Surgery. J. E. Liggett.
139 The Technique of Surgical Gynecology. (Continued.) Augustin H. Goelet.
140 Regional Minor Surgery. (Continued.) George G. Van Schaick.
141 Epithelioma of the Tongue. Chas. N. Dowd.

Hot Springs Medical Journal, September.

142 Address on the Dedication of St. Vincent's Infirmary, Little Rock, Ark. James T. Jelks.

Atlanta Journal-Record of Medicine, October.

143 A Passing Notice of the Therapeutic Application of Psychology. Willis R. Parks.
144 The Present Status of Electricity in Medicine. William B. Snow.
145 Treatment of Infantile Convulsions. J. W. P. Smithwick.
146 An Experience With Chloreton in Cholera Morbus. Edwin B. Reed.

AMERICAN.

3. **Upright Position in Anesthesia.**—French describes a chair-apparatus, in which the patient is fastened during operations, that can be tilted back or set upright as the case may require and illustrates its use by pictures. He speaks especially of its use in operations with ether upon the nose, throat and ear, and sums up its advantages as follows: 1. The very considerable reduction in the amount of blood lost. 2. The reduction of the chances of ear complications, by securing complete drainage of the nasopharynx of blood. 3. The ease, thoroughness and accuracy with which operations can be done in the shortest time, by the retention of the usual relationship between operator and patient.

4. **Asthma.**—In this article, the first portion of which only is included in the present number, Wells describes the theories of asthma that have been held, the vasomotor theory, the uric-acid theory, etc., and toward the close notices certain peculiarities of the disease which seem to indicate that strong mental effects act at least in producing its modifications. He thinks that in theorizing as to its origin we will have to call in psychology and suggests that many of the phenomena are strikingly suggestive of the yet imperfectly understood condition known as hypnotism.

6. **Tuberculosis.**—Knopf describes the methods of infection and their avoidance and notices particularly predisposition, both hereditary and acquired, and maintains that tuberculosis is eminently a curable disease, and that if we can get an abundance of good air and good food, so that it produces new fibrous connective tissue and increases the phagocytic powers of the blood and secretions, the course of the disease will be favorable. So long as the stomach holds out there is hope for the patient and on the general success in this direction depends the cure.

8.—See abstract in THE JOURNAL of July 7, p. 52.

9. **Fracture of the Carpus.**—Ross and Wilbert's article illustrates the possibilities of fracture of the carpus from a study of fifty-two cases as shown by radiograms, and questions the rarity of the trouble. They illustrate the different types by diagrams, the scaphoid seems to be the part most often affected. There are two forms of arthritis that are apt to be mistaken for that which follows fracture of the carpus. These are rheumatoid arthritis in which the previous history is of great importance and the X-ray will clear up the diagnosis, and arthritis following prolonged immobilization of the wrist-joint or other injury of the bone above. In fracture of the carpus there is seldom any displacement, and consequently no replacement is necessary. The recognition of the injury is of great importance, however, for the purpose of preventing the consequences that may follow. The wrist must be kept quiet for two or three weeks, then careful massage must be used. This is of special importance in fracture of this part as inducing the absorption of inflammatory exudates.

10. **Tuberculosis in Colorado.**—Bonney asks whether the actual necessities justify the extreme professional stand and the somewhat intolerant popular tendencies that have been shown. He thinks that the percentage of deaths from tuberculosis is a very unfair criterion of the cases developed in Colorado. The occurrence of the disease in the state is by no means evidence that it originated there. He shows from statistics that there has been a very slight increase in the deaths from consumption in Colorado; in fact, there has been a decrease in proportion to the population, notwithstanding the inherited susceptibility of many of the natives. The influx of consumptives into the state has been a matter of some economic importance, and he thinks that compulsory notification and legislation, not meaning personal restriction or isolation, would be an excellent thing. The interference with marriage and the liberty of the consumptive is at present both impracticable and unwarranted. The education of the public as to the hygienic measures and reinforcement of resisting powers will be the proper course to pursue.

12. **Calentura.**—Calentura in the tropics means any kind of fever, but should be limited, according to Foxworthy, to that fever which occurs usually during the months of December, January and February with symptoms of simple, continued fever and a very slight mortality. He describes it as he has noticed it in the Philippines and endeavors to eliminate the possibility of its being malarious. It somewhat resembles dengue, is rarely fatal and is generally of short duration. He says "whether this fever will be recognized as one of the obscure varieties of malarial fever or will be known as a distant relation of influenza which it simulates often in the epidemic forms, or whether it will continue to be one of the many unclassified fevers of the tropics, time and the microscope will decide."

16. **Home Modification of Milk.**—Townsend's conclusions are as follows: 1. The modification of cows' milk, with a knowledge of the percentages, is preferable to guesswork feeding of infants. 2. Percentage feeding can be carried out by a milk laboratory or by home modifications. 3. Milk laboratories are unavailable to many by reason of their absence or on account of the expense. 4. Laboratory modifications do not, in the experience of the writer, agree with infants as often as home modifications. 5. Laboratory modifications are necessarily subjected to more handling and transportations than home modifications. 6. Milk that is fresh, clean, and from cows free from tuberculosis is preferable uncooked, or, in other words, pasteurization and sterilization, although sometimes essential, are to be avoided if possible. 7. The method of home modification and of calculating percentages should and can be made extremely simple, and such modifications are sufficiently accurate and uniform. 8. The addition of cereals to the milk in the form of barley or oatmeal water is generally advisable after the seventh month, and is desirable before that age in some cases as an aid to the digestibility of the milk.

19. **Finger Infection.**—The subject of traumatic infection of the finger is quite thoroughly discussed by Eliot, who points out the pathologic conditions and progress of the infection and speaks of the advantages of the conservative method of treatment. When there is a certainty of stiff-finger, it is a question for the patient to decide whether or not amputation is to be performed. Stiff-finger may be useful if properly treated and placed in a suitable position for work. He reports a number of cases illustrating his views.

20. **Colds.**—Scheppegrell's article treats of the subject of colds commonly so-called, and shows that whatever influence cold has, it is certainly not the most important factor in the production of coryza. Prophylaxis is of first importance: over-heated rooms especially those heated by steam and hot water which do not provide sufficient change of air are to be avoided. The clothing should not be too heavy and warm, and he calls special attention to the fact that excessive clothing induces perspiration which extracts heat, hence the necessity of

removing wraps when entering a warm room. One of the most useful methods of preventing colds is the use of the cold shower bath, which accustoms the system to sudden changes of temperature. Another important point is keeping the nasal passages in a normal condition. As regards the constitutional treatment there is hardly any subject on which there are so many fallacies, among these the use of quinin, which he thinks has really very little effect. Very few internal constitutional remedies are of much use; a brisk saline purgative if taken within the first twenty-four hours is one of the most useful remedies and the most available for all cases. He speaks also against the local use of drugs, particularly cocain, which is often inducive of habit. The simplest and most beneficial treatment is to bathe the nostrils with a warm normal salt solution, which soothes the mucous membrane, washes it free of acrid secretions and is absolutely uninjurious. It should be used gently with only sufficient pressure to allow it to pass through the nostrils. With the ordinary precautions he has never seen any ear trouble produced by its use.

21. **Rheumatism and Indigestion.**—Page reports a case in which he has treated rheumatism with piperazin water, a combination of phenocoll and piperazin, with strikingly good effects. He has also employed it in cases of chronic dyspepsia, with little modification of diet and with very remarkable beneficial effects.

22. **Medullary Narcosis.**—Marcus gives the history of this method, which is now coming into favor, giving due credit to Corning and attributing to Bier its introduction into surgery and to Tuffier the perfection of its technique. It was first used in obstetrics by Kreis, and he credits to Marx the first extensive report and application of the method in obstetrics in this country.

23. **Tuberculosis.**—Tuberculosis is a disease occurring from crowded, unsanitary, uncleanly, malnutritious and generally bad hygienic surroundings. The bacillus, according to Brooks, is only the histologic exponent, not the whole of tubercle, much less the disease. Pure local tuberculosis is afebrile; it is only the mixed infections that produce fever, the streptococcus being chiefly to blame. As regards treatment it is evident, he says, quoting Brieger, that a specific serum can not meet the indications furnished by mixed infection. It has been noted that the leucocytes and their alexins play a lesser part in this infection than in any other disease. As for drugs, the much vaunted creosotes and guaiacol are inefficacious, climate also is non-essential. Successful treatment resolves itself into the rational application, conversely, of its rundamental causative factors, the diametric antithesis of its so-called predisposing etiology, plus, to use the words of Moeller, "the summation of many minor curative measures, each of which, perhaps, if taken by itself, has a slight effect but collectively are productive of the greatest good." These are supplied by sanatorium treatment, and he maintains that inhalation of antiseptic or medicated atmosphere during the night's rest, hydrotherapy, diet, systematic treatment and, more than anything else, the competency and sincerity of the physician in charge are the essentials of success. In conclusion he says success of treatment is connected with early recognition of the disease, and that it may be diagnosed even without bacteriologic examination is held by high authorities. Treatment must be commenced early.

24. **Hernia.**—The points emphasized by Haynes, whose paper is illustrated by figures in sections, are: 1. We should know the construction of the normal inguinal and femoral regions. 2. We should know the changes which take place when a hernia has occurred at either of these regions. 3. In attempting a radical cure we should seek to reproduce the natural construction of the parts. 4. Nothing but absorbable suture materials should be used. 5. Every precaution for obtaining primary union should be utilized and carefully followed. 6. A truss should be applied to preserve the effects of the operation. If a radical cure has been done a truss is unnecessary; if it has not been done, a truss will not prevent the return of hernia.

25. **Light as a Remedial Agent.**—Kime gives illustrations of his method of photographing through the human body with examples of his success and gives as the principles on which the therapeutics of light is based: 1. The germicidal action due to the violet end of the spectrum. 2. The irritant action of the chemical rays. 3. The power of light to penetrate the tissues of the body. 4. The chemical action of light on the blood itself while circulating through the parts bathed in the powerful light. He remarks that he has treated a number of cases of tuberculosis of the lungs with the light treatment as shown in his first illustration of photographing through the human body, and he reports several cases of cutaneous tuberculosis successfully treated.

26. See also ¶28.

28. **Inebriety.**—Crothers remarks in regard to the gold cure that its day has passed, and analyzes some of the statistics of its results, finding that after ten years no more than 2 to 4 per cent. of the cases "cured" have continued temperate. This compares closely with the results of temperance revivals. In contrast, he points out how scientific treatment has furnished a much larger percentage of success. The chief causes of inebriety are noticed. He emphasizes the fact of the possible self-limitation of inebriety and discusses its relation to various diseased conditions, the policy of the sudden withdrawal of alcohol, the drug treatment, etc. The main point of his paper is the importance of the medical rather than the moral treatment of habitual drunkenness. See also ¶26.

37.—See abstract in THE JOURNAL of September 29, p. 841.

38. **Formaldehyde in Milk.**—This paper appears to be the result of a series of questions sent out to the secretaries of state boards of health and departments of health in the United States. In only one case was the answer returned favorable to the use of formaldehyde, and Dr. Young's views, aside from the findings of experimental work and clinical observation, lead him to advocate that it should be prohibited. He says that: 1. It is the question of encouraging or abetting the addition of a potent chemical to a food-supply by ignorant and slovenly individuals. 2. The absence of legal prohibition will enable slovenly and dishonest persons to put dirty and unwholesome milk upon the market. 3. There is no real advantage in using chemical preservatives in milk, if we are careful and cleanly. 4. The fact that one man or a few take antisepticized milk without apparent harm does not warrant the deduction that babies may be frequently doctored with it. 5. In former years, boric and salicylic acid have been deemed innocuous, but it has been found since that they both have bad effects if taken continuously. One of the correspondents, while not advocating formaldehyde seemed to think that it evaporated quickly. This, however, is a mistake according to the experience of those that have had much to do with it. Another correspondent suggested that it might be allowed under a law establishing a legal maximum. Dr. Young thinks that this would be equivalent to a complete surrender to the adulterators. The results of his examination of all the available printed and other reports regarding the action of formaldehyde seem to justify and require the following conclusions: That, used as a preservative, it tends at least to impair the nutritive value of milk; that its tendency is also to interfere with the digestive processes—in either case it is only a question of dosage, and the limit of safety is difficult to determine; that, though the inhalation of formaldehyde gas is much less dangerous than the breathing of the other gaseous agents much used as disinfectants, the results of tests upon animals and one case of accidental poisoning of a human being, indicate that formaldehyde taken into the digestive system may produce dangerous and even fatal results; that it would be unwise and unsafe to encourage or to suffer the use of formaldehyde in the public milk-supply, even under any possible restrictive regulations; that in every state, as there are now in many, there should be a law prohibiting with effective penalties the use in milk of any chemical preservative whatsoever. These, at present, are the only rational and safe conclusions. If new light arises in the future we can take our bearings anew, and correct our course if need be.

41.—See abstract in THE JOURNAL, xxxiv, p. 1333.

42.—Ibid.

45. **Treatment of Hysteria and Neurasthenia.**—Loveland divides the special points which he makes in regard to the treatment of this condition into five heads. 1. Correct errors of physique. In many cases of both neurasthenia and hysteria we find a debilitated general condition. We should look for evidences of lithemia, malaria, syphilis, etc. Any disease affecting the nutrition, or any irritation producing nerve-waste should be corrected. The means to be employed may vary. The free use of water should be enjoined and the diet regulated so as to be unstimulating and wholesome. 2. The surroundings should be looked after; if they are depressing, they should be changed. Exclude everything that is not cheerful, induce exercise and avoid if possible the wheelchair and hammock habit or anything that will tend to inactivity. 3. Hydrotherapeutics and calisthenics are powerful agents for good; he mentions the methods and includes in this treatment massage. The mental attitude of the patient must also be attended to. The moral treatment is especially important; it is the secret of the success of faith cures, "Christian Scientists," etc. He would not throw aside medicine. Even a more thorough examination than the physician might think necessary will have a good effect in increasing the confidence of the patient. The medicines that are mentioned are often overrated. Strychnin comes first as a nerve tonic, but it should not be used so that it will be felt by the patient. Mild, harmless sedatives like valerian, camphor and hyoscyamus, judiciously used are also serviceable. Laxatives may be needed, in which case phosphate of soda is one of the best. Other medicines may suggest themselves. The latter part of the paper is taken up with reports of cases.

46. **Graves' Disease.**—Norbury describes the symptoms of Graves' disease, of which those referable to the heart are the most characteristic, and discusses the theories. So far as clinical facts go, he believes the theory that the disease is one of the cervical sympathetic nerves and that it is the result of the irritation of the vasomotor dilator nerves and of those nerves of the head and heart that have their origin in the medulla. He is convinced as to the nervous origin of the disease.

48. **Longevity of the Literary Female.**—The first paper of Spitzka's reviews a number of curious facts in regard to literary women, especially that their marriage relations are more unfortunate than the average. Of 60 literary women, several married twice and a few three times, so that there were 77 unions represented. Of these, 22 became dissolved by separation or divorce—by apparently a typographic error it is said that 57 husbands were survived by four widows. Of 382 cases of female poets, scientists and journalists, 280 were found to be married and to have sufficient data existing relative to them to be useful for the present inquiry. Of these 61 married twice, 3 a third time, and one a fourth time, making a total of 345 husbands to 280 wives. Of this number 230 were not divorced from their first husbands, and of the latter 175 survived their partners. He found that the ratio of surviving widows to surviving husbands, among these literary women is that of 100 to 26; the ordinary ratio of widows to widowers being about 2 to 1. This shows an immense discrepancy against the husbands of literary women. If to make a fair proportion he had allowed those who had been divorced from their second husbands to remain in the columns of the surviving, the ratio would have been only 100 to 21. The statistics direct attention to the fact that marriages between literary females and non-literary males contrast unfavorably with those where both members are literary, and that this exhibits itself in the earlier mortality of the male partner, and that the literary female is less adequate to the duties of a wife and mother than the average woman. As regards divorce, he finds that 75 out of 290 with accessible records have been divorced or otherwise separated from husbands, and that so large a proportion of these repeated this performance, that no less than 82 husbands figured in divorces from 75 wives.

56. **Prenatal Degeneracy of the Eye.**—Dean first remarks on the general conditions of degeneracy and reports cases in which he has found ocular symptoms indicating this tendency. Of these, retinitis pigmentosa seems to be the most frequent, is also accompanied with other stigmata, often hereditary, and is very frequently associated with consanguinity of parents. The other forms which he mentions particularly are the presence of persistent hyaloid accompanied with congenital absence of Mueller's muscle, and congenital glaucoma, both of these being examples of persistent fetal conditions associated with degenerative taints. Coloboma and aniridia were also found in several cases with bad family histories.

59. **Etiology of Malignant Diseases of the Skin.**—The etiology of carcinoma is reviewed by Hartzell, who concludes that we can regard it as fairly well demonstrated that it results from some profound and more or less permanent alteration of the mechanism of cell division. The alteration may in his opinion result from long-continued irritation of a mechanical or chemical kind, including under the latter the microorganic toxins. The immediate causes of cancer, therefore, are probably multiple. Xeroderma pigmentosum is obscure as to its causation, but he holds that, owing to the early age at which it appears and the frequency of its occurrence in members of the same family, there is an inborn skin defect. He suggests also, in view of the rapidity of growth and malignancy of melanotic growths, that it is quite possible that the pigment exercises some toxic effect on the epithelium, producing a profound disturbance in the processes of the cell division. As regards Paget's disease, age and sex are the two most important etiologic factors; it is rarely found in men and before the age of 40. Of the direct causes we know nothing. The psorospermial theory of Darier has been thrown out as unfounded, and Hartzell thinks that it is likely that the irritation and injury to the nipple during nursing plays some part in the production of the diseased condition of the epidermis producing the cancerous affection.

60. **Recurrent Epididymitis.**—After a review of the subject and brief reports of a number of cases Chetwood concludes as follows: 1. Surgical resection of the testicular ducts, which obliterates the lumen entirely and positively prevents an ascension of the spermatozoa into the urethra, also prohibits the descent of inflammation from the urethra into the epididymis. 2. The pathologic occlusion of the ducts by inflammatory process only accomplishes this result partially, since it is clearly in evidence that many of the cases having had double inflammatory epididymitis still continue to suffer from a recurrence of inflammatory attacks in the epididymis, and since it is also proved that some of these individuals continue to have vital spermatozoa in their seminal discharges and to retain the capacity to impregnate their wives. He is not aware that this point has been clearly demonstrated before this writing.

61. **Treatment of Malignant Diseases of the Skin.**—Cancer being a local disease, its treatment must necessarily be local, and constitutional measures other than those needed to support the patient are useless. Of the local treatment there are two methods; caustic and excision. The former, while it has its advocates, has a weak point in that it postpones the removal of the lymphatic tissues and glands in the neighborhood. Shepherd holds that there may be affection of the glands without apparent symptoms, and that in all cases, to be on the safe side, all the neighboring glands and lymphatic tissue should be excised, especially when the disease occurs in such parts as the tongue, lips and genital organs. The results of excision, so excellent of late years, have been due to the recognition of the facts that cancer is a local disease and therefore must be removed early, and that it spreads by the lymphatics. He admits that there are certain malignant ulcers of the skin which, if seen early, may be successfully removed by caustics, especially those slow-growing forms seen in regions somewhat removed from the glands, such as in the nose, forehead, cheeks, temples, etc. In rodent ulcer, in cases of slow growth and when the glands are not rapidly affected and where the ulceration

V.3
190

is superficial, other means than excision may be employed. Caustics are also most useful when the disease has affected the bone. He has grounds to think that there is a medium to be found between the practice of physicians and that of surgeons in the treatment of this condition. If caustics were properly applied instead of being used only by quacks, many patients would be better off than is now the case. The use of toxins obtained from cancerous growths, advocated by Adamkiewicz in 1893, has been practically discarded. The erysipelas toxins of Coley have been rather more successful. The different caustics such as arsenic, caustic potash, and their action are here mentioned, as is also electrolysis, advocated by Dr. G. B. Massey. In skin sarcoma, when single and localized, early and complete excision is the best treatment. In cases of malignant multiple sarcoma, hypodermic injections of arsenic have been successful in many cases and attacks of erysipelas have actually caused sarcoma to disappear, hence the suggestion of Coley, who has reported success. Shepherd has himself tested these toxins but without good results.

62. **Proliferation and Phagocytosis.**—Mallory first describes the different phagocytic actions observed from various infections, and in conclusion suggests the question whether the processes he has described are due directly to the action of toxins or reparative. In repair, cells proliferate for definite purposes—to cover denuded surfaces; to replace loss of tissue; form new blood-vessels, etc. The cells, however, which proliferate under the direct action of toxins, multiply greatly in excess of need and show lack of definite purpose. They may exert some more or less beneficent action, possibly produce antitoxins, but they must not be regarded as reparative and may do great harm, block up lymphatics, produce narcosis, be carried to the liver as emboli and otherwise interfere with the organic economy. The phagocytic cells are phagocytic beyond all bounds of necessity and destroy great numbers of active, useful cells. They are all abnormal and, to a certain degree, malignant.

64. **Neurofibrils of the Ganglion Cells.**—Paton has studied the special neurofibril structure of the cortical ganglion cells, using a special modification of his own of Apathy's method. He hopes still further to improve this method in future research. As regards the nature of neurofibrils, he disputes their being artefacts, showing that they undergo rapid degeneration after death. In one of his sections the visible network of fibrils is not within, but is superimposed upon, the cell and its processes, and he thinks this extracellular network is that which Held has described as the pericellular network of terminal axones, also the reticulum surrounding the nerve cell described by Golgi. After a careful study of the development of the ganglion cell, he has come to the conclusion that the presence or absence of "gemmules" is dependent upon the existence or non-existence of fibrils. A gemmule is formed by a silver deposit at the point where the nerve filament or fibril enters the nerve process. This is also found if the fibril is simply lying on the process. They are found either at the point of entrance or at a simple contact of the fibril with the protoplasm of the cell process.

65. **Oxaluria.**—The conclusions of Baldwin's experimental study are as follows: 1. As varying amounts of calcium oxalate may be held in solution in the urine, conclusions based on the presence or number of calcium oxalate crystals found therein are of no real value as an indication of the quantity of the oxalic acid present. 2. Unless the utmost care is exercised, the results obtained by quantitative estimation of oxalic acid are subject to large percentages of error. This is especially true in the use of Neubauer's or Shultzen's methods, in which the calcium oxalate is precipitated in an alkaline solution. 3. An ordinary mixed diet regularly contains traces of oxalic acid or its salts. 4. A portion of the oxalic acid ingested with the food may be absorbed and reappear unchanged in the urine. 5. The normal daily excretion of oxalic acid in the urine fluctuates with the amount taken in the food, and varies from a few milligrams to two or three centigrams, being usually below ten milligrams. 6. In health, no oxalic acid, or only a trace, is formed in the body, but that present in the urine has been ingested with the food. 7. In certain clinical disturbances which in some of the cases studied above were associated with absence of free hydrochloric acid from the gastric juice, oxalic acid is formed in the organism. 8. This formation in the organism is connected with fermentative activity in the alimentary canal. *a.* Prolonged feeding of dogs with excessive quantities of glucose, together with meat, leads eventually to a state of oxaluria. *b.* This experimental oxaluria is associated with a mucous gastritis, and with absence of free hydrochloric acid in the gastric contents. *c.* Oxaluria and accompanying gastritis are referable to fermentation induced by the excessive feeding with sugar. *d.* Experimental gastritis from fermentation is associated with the formation of oxalic acid in the gastric contents. 9. The symptoms attributed to an oxalic acid diathesis, with the exception of those due to local irritation in the genito-urinary tract, do not appear to be due to the presence in the system of soluble oxalates, but are more likely to depend on other products of fermentation and putrefaction.

66. **Serum-Globulins and Antitoxin.**—From a series of experiments Hiss and Atkinson conclude that the amount of antitoxin substance obtained by precipitation with magnesium sulphate from the blood-serum of the horse, corresponds as nearly as can be determined in full to the protective power of the serum from which it is obtained. Equal amounts of precipitate by magnesium sulphate from immunized and non-immunized horses act differently toward toxin, thus the proportion of protective substance to the precipitate from non-immunized serum is exceedingly small as compared with the proportion of antitoxin from the precipitate from the serum of immunized horses. The average precipitate from the latter is more abundant than that from the serum of non-immunized horses, and before immunization the serum gives less abundant precipitates than afterward. The proportion of increase per unit of antitoxic strength for the same or different horses is not constant. This may be due to the increase of inactive substance or to imperfect methods of determination. They do not feel warranted in considering any parts of these precipitates as anything else than globulin, but do feel warranted to conclude from the fact that globulins of normal serum do not protect or only in comparatively large amounts, against diphtheric toxin, that new globulins are formed, or rather greatly increased in the serum of immunized horses and that these globulins protect against the toxin. Every animal has its physiologic and pathologic history, hence absolute conformity in the results obtained is not expected.

67. **Antitoxic Strength of Globulins.**—Atkinson has carried out some investigations as to the fractional precipitation of globulin and albumin of normal horses and diphtheric antitoxic serum and the antitoxin strength of the precipitates, from which he deduces the following: 1. The globulins of both normal and diphtheria antitoxic serum exhibit chemically toward reagents the same reactions, being precipitated by magnesium sulphate and split up into fractions in precisely the same way. 2. All the diphtheric antitoxic power of both normal and immunized serum is always carried by the globulin and its fractional precipitates. 3. During the fractional precipitation of the serum-globulin of horses immunized from diphtheria toxin and horses not immunized from diphtheria toxin, some of the globulin is lost, likewise at the same time some of the antitoxic power of the globulin of the immunized serum is lost. 4. These reactions, considered in connection with the fact that different observers as well as the author have found diphtheric antitoxic power in normal horse's serum and that this antitoxin separates with the globulin, strongly inclines him to consider "diphtheria antitoxin" a form of globulin. 5. The reactions of globulin, previously separated from the serum by magnesium sulphate, with sodium chlorid lead one to think that there is a formation of globulin salts. 6. Since serum albumin in a magnesium sulphate solution gives fractional precipitates at definite temperatures, it seems not improbable that the albumin is precipitated in the form of albumin salts.

68. **Sporothrix Schenckii.**—Hektoen and Perkins describe a case of refractory subcutaneous abscess similar to those noticed by Schenck in an article in the *Bulletin of the Johns Hopkins Hospital* for December, 1898. Dr. Hektoen was unable to see any distinguishing difference either culturally or morphologically between the fungi of Dr. Schenck and those of their own observation. A characteristic clinical feature in the human cases that have been found is the refractory character of the subcutaneous abscesses.

78. This article will be noticed editorially.

79. **Echinococcus of the Pleura.**—Cary and Lyon describe a case which they consider of interest from its rarity and from the peculiar type of degeneration of the cyst wall which, according to them, is described here for the first time. The wall became a thin, hyaline structure which was derived by the process of degeneration from the cuticular walls of the parasite itself and not from the tissues of the host.

83. **Pedicle Flaps in Injuries of the Hand.**—Schroeder describes the method of restricting contracted cicatrices of the hand by the pedicled-flap method and illustrated by cases. For covering the thumb, dorsum or palm, flaps may be taken from the chest or abdomen; where the palmar surface of fingers is destroyed it is much better to have double pedicles and they can be best obtained from the hip. The advantages are: 1, mobilization; 2, elasticity; 3, certainty of taking.

84. **Hydrocephalus.**—After reporting a case of internal hydrocephalus following cerebrospinal meningitis, Joslin gives a résumé of the literature of such cases, description of the pathologic symptoms, prognosis and treatment of the condition. He notes especially the very long duration and the large mortality, though it would appear that the prognosis is better than has been supposed. As regards treatment he sees little benefit from tapping.

90. **Obstetric Surgery of Pelvic Contraction.**—It is generally believed that pelvic contractions or deformed pelves are more common among Europeans than among Americans. While Jewett seems to doubt the absolute truth of this, he admits that it is much less common, though not as rare as usually assumed. There is a lack of statistics of pelvimetry in this country which has been noticed by European authors, and he gives here the simplest methods of measurements. External mensuration has the advantage of being least uncomfortable to the patient and most easily done. The only external diameter essential for the purpose is the external conjugate, and this is best measured, not from the spine of the last lumbar vertebra, but from the depression immediately below it to a point on the pubic surface a little below the upper margin of the symphysis. With the external conjugate at or below 6 or 6¼ inches, the pelvis is invariably contracted. With one at or above 8 inches it is almost surely ample. Between these two figures the matter is in doubt and should be determined by other measurements. Of the internal measurements the diagonal conjugate is the most important and it should not be less than 4½ inches. Allowance may be made for the variations in depth, thickness and inclination of the symphysis, but these are less important in diagnosis of deformity than in determining its degree. Some usual indications of pelvic contractions at labor are: 1. Failure of the head to engage during active labor. 2. Failure to engage by well-directed suprapubic pressure. This often may be employed to advantage as a test in a few weeks immediately preceding labor. 3. Failure of tentative traction with forceps. In partial enlargement of the head the latter should always be tried with the aid of the Walcher posture before resorting to surgery. He speaks favorably of symphysiotomy, believes that it still holds an important place in obstetric practice and does not believe that it leaves any permanent enlargement of the pelvis. It is of value in cases of slight contraction and is simpler than Cesarean section. Considering Cesarean section he remarks that the disposition of the uterus is important, but the ethical side of the question must be considered; except when demanded in the interest of life, the surgeon can not assume the right to remove it without the patient's consent.

95. **Hemolysins.**—Fisch notices the results of Ehrlich and Morgenroth, who find that hemolysins which will act on other animals and other individuals of the same species will not act on individuals producing them. The autolysin seems to be undiscovered. He reports his own experiments, which bring out nothing special other than that found by Ehrlich and Morgenroth, and says that it seems most probable to explain the phenomena by the absolute absence of receptors in the tissues of an animal for the haptophorous groups of its own corpuscles.

103. **Common Food Adulterations.**—In this second article, Leuf notes the adulteration of extracts, vanilla for example, which is very largely made up of tonka bean and others of various fruits are manufactured of compound ether, coloring matter, sugar or glucose, and water. Both the natural and artificial extracts usually contain preservatives, the commonest of these being salicylic acid. Lemonades are manufactured from oil of turpentin and tartaric acid with sugar. Milk and cream are adulterated with water and preservatives. Canned goods are usually pure. The only adulterant of coffee is chicory, and this is only possible when it has been ground. The public is very often imposed upon by getting a poorer grade than it pays for, but it always gets coffee if it buys the bean, and does its own grinding. Very little good tea comes to this country. It is a common belief that vinegar is merely dilute sulphuric acid, but its production is so cheap that it would not pay to adulterate it. Vinegar may be diluted, and a so-called vinegar essence is sold consisting simply of concentrated acetic acid or crude pyroligneous acid. Cocoa and chocolate are deteriorated by the abstraction of the fat before being ground and are also diluted with varying proportions of cereal starches and ground cocoa shells. The adulteration of wines, beer, etc., is also noticed.

114.—See abstract in THE JOURNAL, xxxiv, p. 1418.

116. **Surgical Treatment of Ulcerations of the Stomach.**—Wenner reports two cases of gastric ulceration treated by operation, and from a study of these and of others gathered from the literature of the past years he considers the following conclusions justified: 1. That the severity of the hemorrhage does not indicate the degree of ulceration. 2. That the time of vomiting bears no constant relation to the location of the ulcer. 3. That repeated small hemorrhages or recurrence of a second grave hemorrhage demand operation. 4. That after careful medical treatment extending over a period of two months, without amelioration of symptoms, an operation should be advised.

117.—See abstract in THE JOURNAL, xxxiv, p. 1624.

135. **Organotherapy in Gynecology.**—Jack reports several cases in which organotherapy was employed, and concludes: 1. Thyroid extract is one of our most reliable vasomotor constrictors. In gynecology it should be limited to hemorrhages, especially those in which epithelial elements of the endometrium are concerned. 2. Mammary extract controls the hemorrhages from fibromata and reduces the size of the tumor; in some cases causes their disappearance and in such disorders it should be preferred to thyroid extract. 3. Parotid extract is the best remedy yet brought out in the treatment of dysmenorrheal; it softens pelvic exudates, regulates menstruation, and relieves nervous symptoms. 4. Ovarian extract is indicated in nervous symptoms of the menopause or when from any reason it is desirable to increase the flow. He believes in its function of internal secretion and thinks it the best ovarian stimulant.

FOREIGN.

The Lancet, October 6.

Aneurysm of the Renal Artery. HENRY MORRIS.—Two varieties of aneurysm of the renal artery are known after injuries: 1. Small sacciform aneurysm, the walls of which are formed by some or all the coats of the artery. 2. Large, false aneurysm, the walls of which are composed of the con-

densed fibrous tissue developed around the extravasated and coagulated blood, and with which the surrounding organs and tissues become more or less firmly matted. False aneurysm sometimes reaches an enormous size and may be due to the giving way of the small true aneurysm, to the yielding of a thrombus, which temporarily closed a ruptured artery, and to immediate outpouring of blood from a ruptured artery. True aneurysm may also be associated with an extravasation of blood and also with the false aneurysm and both may be the result of some accident. Morris gives accounts of cases of various types of this accident and discusses the etiology. Of 19 cases 12 were traumatic and 7 spontaneous. Of the 12, 2 were sacciform, 9 false and 1 doubtful. Males appear to be particularly susceptible as 10 out of the 12 were of that sex. The spontaneous cases were associated with malignant endocarditis with multiple embolism, cancerous degeneration of the arterial coats, nephritis, and probably embolism and thrombosis. Small sacciform aneurysms when unruptured produce no distinct changes in the kidney. False aneurysm is associated with pressure changes and numerous symptoms, tumor, hematuria, etc. As regards the diagnosis the small sacciform aneurysm giving rise to any symptoms may be unrecognized during life. The tumor caused by false aneurysm is especially difficult to diagnose and may be confused with renal new growths, hydro or hematonephrosis, etc. Its prognosis is most unfavorable. The only rational treatment is nephrectomy and the removal of the whole or greater parts of the aneurysmal swelling. The operation will generally have to be commenced as an exploratory one, and when the tumor is recognized the incision should be enlarged, the pedicle secured or renal artery ligated, at any rate before attempting to amputate or remove the sac. The risks are hemorrhage and shock. In exposing the sac it is advisable to incise it and remove a little of its solid contents. If hemorrhage occurs the opening should be immediately packed with gauze. The adhesions may unite the wall of the aneurysm with the peritoneum and bowel, and if the adhesions are tough and firm it may be impossible to remove the whole of the sac wall. As much of the wall as possible should be removed and the rest left and drained.

British Medical Journal, October 6.

Some Problems of Tropical Medicine. WILLIAM MACGREGOR.—In this address on tropical medicine MacGregor gives some interesting particulars as to the introduction of old diseases among the tropical race as well as regards the special indigenous diseases themselves. Typhoid fever, for example, was unknown in Polynesia, and also in British New Guinea until introduced. The disease of yaws, however, is one that almost everyone in the tropics will come in contact with, and is considered by the natives as inevitable. While not very contagious to Europeans it is loathsome and troublesome when caught. It is much more mild in the African and Papuan than the Polynesian, and MacGregor generally found it not very readily curable; as regards its eradication, situated as he was in New Guinea, he thinks he might as well have tried to arrest an earthquake. Venereal disease was unknown to the Pacific Islanders until introduced and seems to take a specially active course among them. The same is true of measles, which destroyed about one-third of the Fijians when first introduced, giving a remarkable example of the exuberance of a new disease among a new people. It was not more surprising in Fiji, however than the itch in New Guinea. This malady, introduced in some old clothes, spread like a tidal wave, affecting thousands of the population; but after a while it finally declined to a level, at which it will probably always keep in a community where clothes are common property and itch attacks the human face. Dysentery was unknown in British New Guinea and Fiji before the advent of Europeans, and its mortality has been exceedingly high in the Polynesian Islands. The man who will work out an effective means of dealing with it will be the greatest benefactor of the tropical races. Malaria is the most important matter to both the student of tropical diseases and the tropical resident. Since the discovery of the mosquito's agency we will have to take measures heretofore neglected; mosquito nets, protection of pools and reservoirs from insects and avoidance of exposure through the means of clothing, etc., drainage and many other matters are suggested. In the tropics the population going half-naked complicates the situation. Civilized Europeans will not wear low-necked dresses in malarial regions if they have learned to take proper care of themselves, nor will they sit with their feet under the table with their ankles exposed, excepting for silk stockings. Elephantiasis is another mosquito-borne disease, and though of minor importance, is an interesting subject. Diphtheria, cancer, and tetanus appear to be all introduced diseases in New Guinea and the Polynesian Islands. Erysipelas was also unknown there. Tinea imbricata is a very evident disorder. Ankylostomiasis is indigenous in the Pacific without doubt. The exclusion thus far of rabies from the Australasian colonies is a most important matter, and with the habits of the wild and domestic native dogs its introduction would be a very serious one. The government measures for excluding this disease are, it is hoped, taken effectually for all time. Other subjects mentioned are the jigger, which is comparatively unimportant; leprosy; quarantine, which is not an English favored method, and the need of medical men being experts on the question of drinking-water especially.

A Discussion on Subdiaphragmatic Abscess.—The discussion is opened by Godlee, who first notices the anatomy of the subject, and then passes on the classification as proposed by Maydl. When an ulcer of the stomach bursts in the general cavity the subdiaphragmatic portion of the collection of fluid must not be regarded as a separate abscess, but occasionally the effusion is localized, and then we have essentially an acute sub-diaphragmatic abscess. It is generally limited to the right by the falciform ligament of the liver, its other limitations will vary with different cases. Occasionally the rupture occurs on the posterior aspect of the stomach, giving rise to a collection in the small sac of the peritoneum and this may also be called a subdiaphragmatic abscess. The abscesses resulting from gradual rupture of an ulcer where adhesions are previously formed, are very different, and may set up processes in various directions. They may also be accompanied with collections of serous fluid in the pleura. Rupture of an ulcer of the duodenum or transverse colon may cause subdiaphragmatic pneumothorax, a collection of pus and gas pushing the diaphragm up sometimes quite high and reaching down a long way into the abdomen. A simple opening of the abscess may effect a cure, but occasionally it may be possible to reach and close the perforation. Those resulting from appendicitis often track up along the ascending colon and cause a collection between the liver and diaphragm. General peritonitis is not infrequently associated with the formation of pus around the liver and spleen. Suppurating hydatids of liver and spleen may lead to enormous collections of pus beneath the diaphragm, which may be mistaken for empyema, and many abscesses of the liver erupt into the subdiaphragmatic space. Acute suppuration of the gall-bladder may also be accompanied by subdiaphragmatic abscess, though more frequently it is situated farther down. Perirenal abscesses, while they usually point in the loin, may be purely subphrenic. They are not like those hitherto considered, peritoneal, but separate the peritoneum from the diaphragm. They are generally associated, however, with a certain amount of plastic peritonitis with its usual symptoms. The diagnosis is somewhat obscure, though the treatment is not difficult when once diagnosed as a rule. Cases are recorded of abscess in this situation following injuries unaccompanied by wounds. Godlee thinks that these depend on the rupture of some previously existing ulcer. That cases may occur after wounds is generally understood. Metastatic abscess is mentioned, but he does not understand just what is referred to, and has no personal experience with such. Caries and necrosis of the ribs may give rise to subphrenic abscess, which hardly deserves the name because the suppuration is really in the muscle and if it exists downward will be found along the layers of the abdominal muscle. It is conceivable that it may burst inwardly, but it is more likely to point externally. Any collection of pus in the thorax may make its

way down to the space below the diaphragm, but this is much less common than for a collection of matter below to work upward. Actinomycosis so frequently affects the liver that it almost deserves a special heading, but its progress is so slow, however that there is always time for adhesion to occur before the suppuration extends beyond the capsule of this region. Two other possible causes are mentioned, tuberculous peritonitis and diseases of the pancreas, including calculi and pancreatitis.

A Discussion on the Methods at Present Available for the Treatment of Simple (Subcutaneous) Fractures. WILLIAM H. BENNETT.—Bennett sums up his conclusions in regard to the treatment of simple fractures in the following statements: 1. The treatment of simple fractures at present, although less stereotyped than hitherto, is still conducted generally too much on lines which are traditional rather than rational. 2. The use of splints for long periods is disadvantageous, especially in the form of irremovable appliances such as plaster of paris and the like. 3. Speaking generally, the earlier movements of the joints above and below the fracture in a long bone are used the shorter is the time occupied in recovery. 4. The legitimate scope of the operative treatment of simple fracture is limited, and should be confined to cases which are otherwise unmanageable; special cases such, for example, as certain spiral and oblique fractures, mainly of the tibia, and certain fractures near joints, notably of the humerus at the elbow. 5. The operative treatment of recent fracture of the patella is by no means so generally satisfactory or so free from risk as published cases would tend to show; and further, in cases in which the separation of the fragments does not exceed half or even three-quarters of an inch, as good results for practical purposes are obtainable without operation although less rapidly. 6. The use of massage and passive movements immediately in simple fracture when the circumstances of the patient and of the practitioner admit of it either in its entirety or with modifications is, in the majority of cases, the best means of effecting a rapid and useful recovery. 7. The tendency of late has been to exaggerate the degree of disability and diminution in wage-earning capacity following upon simple fractures. 8. Although no pains should be spared in obtaining perfect apposition of the fracture ends, moderate displacement, provided that it is not rotatory, is not necessarily followed by any disability if care be taken by the use of early movements to prevent any matting of the parts around the fracture; in other words, the disability which follows in certain cases in which the position of the united fragments is not ideal is due, not to the bony deformity, but to the adhesion of the soft parts around, which is easily preventable. 9. Having regard to the unavoidable modifications which must be dictated by the circumstances, social and otherwise, of the patient, and by the facilities possessed by the practitioner, no one method of treatment for simple fractures can be insisted upon for routine use even in cases in which the local conditions are precisely alike. To the discussion of the methods in regard to simple fracture he adds in tabulated form the information obtained from submitting a series of questions to 300 physicians of London and other parts of Great Britain.

Annales de la Soc. Med.-Chir. de Liege, July.

Granulation Through Gauze. ROERSCH.—The gauze applied in dressing a large burn on a child was left when the dressing was renewed. Granulation was so intense that the tissue proliferated through the gauze and a layer of granulations formed on the external surface. They became painful and suppurated; the gauze rotted and the entire surface of the wound had to be scraped, after removal of the large flap of gauze with granulations still adherent on both sides.

Presse Medicale (Paris), September 22, 29, October 6.

Epididymo-Testicular Tuberculosis and Ligature of the Spermatic Cord. P. MAUCLAIRE.—Suppuration and a prostatic lesion are the signs of tuberculous epididymitis. The absence of a discharge excludes gonorrhea, and syphilitic infection is usually localized on the testis, which becomes flattened and completely insensible even to strong pressure. Mauclaire treats epididymo-testicular tuberculosis by ligating the spermatic cord in two places, 2 cm. apart, close to the inguinal canal, and severing the cord between them. The testis soon establishes collateral circulation by adhesions with the neighboring parts. The advantages of this method are manifold. It retains a "moral" testis, separates a tuberculous focus from the rest of the organism, isolates it from the prostate and is possibly able to prevent infection of the other testis, which is not always accomplished by castration. His results have been extremely encouraging. The testis may swell at first but by the end of a month atrophy commences, or it may retain its normal size for six months, but sooner or later it becomes transformed into a painless bunch. He sutures the wound completely after cauterizing.

September 29.

Simple Primary Hyperchlorhydria. L. SANSONI.—Fourteen years' experience as a specialist in gastric troubles has only confirmed Sansoni's previous conviction that what we call hyperchlorhydria is in reality merely an exaggerated specific sensitiveness of the gastric mucosa to the hydrochloric acid, which is not necessarily in excess. His chief arguments in favor of this view are that perfectly healthy persons may have an exaggerated gastric secretion or hyperchlorhydria without disturbances, and that this exaggerated secretion may persist or even increase after complete recovery from what we call classic primary hyperchlorhydria. Also the existence of a normal or subnormal gastric secretion in persons exhibiting all the symptoms of primary hyperchlorhydria, and the efficacy of the usual means of cure in such cases. He therefore proposes for the affection the more accurate and descriptive term "digestive hydrochloric hyperesthesia." He adds that it is impossible to determine the exact figure representing the normal hydrochloric secretion of the stomach, and that the alterations in this secretion are unable, alone, to originate morbid phenomena. The specific hyperesthesia of the gastric mucosa for hydrochloric acid is also liable to cause a reflex spasm of the pylorus and hence retention of the food and, secondarily to this retention, a continuous secretion of gastric juice. These phenomena are proved by the abolition of the spasm and evacuation of the contents of the stomach after ingestion of sodium bicarbonate to neutralize the hydrochloric acid, or by soothing the hyperesthesia with atropin or hot water; also by the coincidence of the spasm with the acme of digestion, when the secretion of hydrochloric acid is at its height. The success of various remedies is probably due to their action on the gastric sensibility, and not on the secretions, as hitherto assumed. Lavage of the stomach with tepid alkaline water, hydrotherapy, climate, suggestion and electricity all act in the same way, curing the neuropathic hyperesthesia. It is possible that continuous gastric succorrhea might be due to a primary and fundamental disturbance in the secretion, but in Sansoni's experience he has found in every case in which the symptoms indicated continuous gastric succorrhea, remains of food in larger or smaller amounts in the fasting stomach, even in the morning.

October 6.

Varicellic Rashes. L. CERF.—About the only positive differentiating symptom between a varicellic rash and scarlet fever is the pink stripe observed in the center of the white band that follows linear pressure with the nail or point of a pencil on a patch of the eruption in scarlet fever. Varicellic rash may occur anywhere on the body, but the eruption in variola usually first occurs as "bathing trunks." The scarlet-fever eruption always scales in time, while nothing of the kind occurs in a varicellic rash.

Gouty Angina Pectoris. L. BRODIER.—The pathologic action of gout on the cardiac plexus is well illustrated in the case described, in which the attacks of angina pectoris from this cause alternated with joint troubles. No lesion of the aorta nor constriction of the coronary arteries was found at the autopsy, but the myocardium was altered and the right heart dilated.

Semaine Medicale (Paris), October 3.

The Pupil Danger Sign in Bromid Treatment of Epilepsy. GILLES DE LA TOURETTE.—The most successful, in fact

the only, treatment we have for essential epilepsy is with the bromids. They should be administered for two or three years with the most scrupulous vigilance in the exact doses ordered by the physician, using always the same spoon or medicine glass to ensure accuracy in the dose, which must be graduated to the individual case. A distinct advance in the treatment of epilepsy is the discovery of a sign which enables the exact individual dose to be determined for each patient. In the course of bromid treatment when the drug is well tolerated the pupils are normally dilated. They react as usual to light and accommodation. If the dose is increased, a moment arrives when the pupils become dilated and respond lethargically to light and accommodation. With a still larger dose the pupils are dilated to the maximum and do not react at all. When the reactions first become sluggish there is a general sensation of slight physical and mental depression. The patient feels heavier and tired, with less aptitude for mental and physical labor and with an inclination to sleep during the day. The appetite fails, with constipation in some cases. These symptoms in combination with the pupil sign indicate that the adequate individual dose has been reached. This condition is harmless and should be maintained, the dose of the bromids increased or diminished according as this condition varies. If the adequate dose is unmistakably attained at the end of two three-week periods—which represent a month and a half of treatment—it is seldom necessary to increase it more than 2 or 3 gm. during the remainder of treatment. Even in epileptics extremely sensitive to bromid intoxication it is possible to cautiously reach and keep up the adequate dose without general accidents of intoxication if the pupils are watched and the patient kept under surveillance. If exaggeration of the general symptoms and gastric disturbances occur, the bromid must be immediately suppressed and the patient purged and put on a strict milk diet with squills and digitalis to stimulate the heart and kidney action for three to four days. The bromid can then be recommenced in small doses until the adequate dose is reached once more. The seizures are liable to recur if the adequate dose of bromid is surpassed, the same as when too little is given. The local accidents are less easy to handle. They may coexist with the general, but are usually independent. They occur as cutaneous manifestations, chiefly in subjects predisposed to acne. A few slight patches of acne are trivial, but when a confluent eruption occurs it may interfere with the occupation and oppose an obstacle to efficient treatment. In case of absolute intolerance, the bromid can be administered by the rectum, using 1 or 2 gm. more than by the mouth. It is possible to determine the adequate dose by the pupil sign, the same as when bromid is taken by the mouth. In these cases it is sometimes possible to combine a small amount by the mouth with the rectal injection. The formula found most effective is a combination of 40 gm. of potassium bromid and 12 gm. each of sodium and ammonium bromid and sodium benzoate, in 1000 c.c. of boiled or distilled water. This is equivalent to 1 gm. of the combined bromids to a tablespoonful, which is taken after the first breakfast and on retiring. If the seizures are known to recur at certain hours, it is best to give two-thirds of the dose for the day just before the hour. The main features of the treatment described are the determination of the adequate dose and the maintenance of this dose until all accidents have disappeared, then saturating the system by maintaining the adequate dose at its maximum for a year longer, then gradually diminishing by a gram at each three-weeks' period under careful supervision, and resumption of the maximum adequate dose at any indication of trouble. The patient should be warned that if the proper dose is neglected and a seizure or vertigo occurs after six months, all the benefits of the course are lost and it will have to be commenced over again. Pregnancy is no contraindication to its continuance, nor a slight, transient, intercurrent affection. Charcot's method of administration is followed, increasing the dose by 1 gm. a week for three weeks and then diminishing at the same rate for three more, and then recommencing. In women the periods should range for four weeks, with the maximum corresponding to the menstrual period. The patient takes 3, 4 or 5 gm. of the bromids during three weeks and is then seen again or not until the end of the sixth week. The condition then gives an indication of the tolerance for the drug and suggests an increase or decrease of the maximum. Children frequently tolerate as much as an adult. In all cases the prompt determination of the adequate dose and its maintenance at this point, with treatment for two and one-half years, are the main points, commencing to diminish the dose about a year after the last symptoms.

Centralblatt f. Chirurgie (Leipsic), September 29 and October 6.

Indirect Sounding. Kuhn.—Four years have passed since Kuhn first described his sounds made of a spirally-wound wire, inside which a stiff sound is introduced. The spiral prevents injury while the stiff sound affords the desired information. Experience has confirmed the value of this combination, and he now relates instances in which a correct diagnosis had been impossible until this indirect sounding was resorted to. It has all the advantages of both a soft and a stiff sound, while its worm-like and rotating movements enable it to discover an excentrically located lumen. It is peculiarly adapted to the exploration of the biliary passages and fistulæ.

October 6.

Successful Disinfection of the Hands. J. Hahn.—While others have been laboring to evolve a method of thorough disinfection of the hands and proclaiming the failure of the usual methods, Hahn has been quietly following the technique which he described in the *Monatsschrift f. Geb. u. Gyn.*, v. 5, nearly four years ago. It attracted no notice at the time nor since, and yet it has proved unfailingly reliable in his experience, as a series of 136 operations without a single instance of even the slightest operative infection fully demonstrates. The hands and forearms are scrubbed four times in succession with soft soap and fresh water at 40 C. They are then washed for four minutes in 1 per thousand alcohol solution of sublimate and the forearms left wet. The hands are then rinsed in 1 to 2 per thousand aqueous solution of sublimate until all the alcohol is removed and dipped again into the sublimate-alcohol for a minute or two before and after the blouse is put on. Bacteriologic and other tests indicate that this method combines all that can be expected from disinfection of the hands.

Dermatologisches Centralblatt (Berlin), September.

Iodin Parotitis. K. Groen.—A young man under treatment for syphilis at various intervals took potassium iodid at least sixteen times. Eight times he reacted with an acute swelling of the parotid gland. Quinin had no effect in preventing the parotitis, but potassium bromid administered with the iodid on one occasion possibly co-operated in preventing the glandular lesion.

Dermatologische Zeitschrift (Berlin), September.

Urethral Pouch in Boys. J. V. Bokay.—The fourteen cases of true urethral diverticula that have been observed in boys impress the benefits of prompt surgical intervention in these cases. In six the operation resulted in a complete cure, and in two others a small fistula persisted. In the three personal cases described by Bokay the diverticulum was accompanied by severe bladder and kidney affections, and all terminated fatally. One was 2 weeks, the other 3 years old. The pouch had been noted in infancy in six cases. In only 3 out of the 14 was there a perceptible valve-formation or stricture to which the development of the diverticulum could be ascribed. Consequently Bokay is inclined to attribute all the cases to congenital malformation, although it may not have caused disturbance, nor even attracted the patient's attention for years. The treatment consisted in slitting the urethra and cutting an ellipse out of the pouch, suturing en masse or in tiers, or packing the cavity with gauze and allowing the wound to heal by granulation. He also describes a single case of a false pouch due to a calculus.

Lupus Extirpation. E. Lang.—In this review of the 85 cases of lupus operated on by Lang, in only 58 could the results be followed to date after an interval of more than six months. Of these 39 have had no relapse during the six months to seven years since the operation; 19 have had slight

recurrence, but some refuse further operation, and only 12 have been operated on a second time.

Deutsche Medicinische Wochenschrift (Leipsic), Sept. 27 and Oct. 4.

Diagnosis of Tubercular Peritonitis. H. LOEHLEIN.—One of the minor aids in diagnosing is the difference between the left and right hypogastrium on palpation and percussion. In case of tubercular ascites there is distinct dulness left of the median line, above the iliac fovea, while the sound becomes clearer on the right side in proportion to the distance from the median line. The explanation is probably in the retraction of the affected mesentery toward its root, drawing the intestines toward the right side of the abdominal cavity, while the effusion is localized more on the left. A still more important aid in differentiating is the discovery of small tubercles on the serous membrane of Douglas' pouch, palpated through the rectum. Loehlein advises frequent investigation of these tubercles in case of progressing recovery as the best indication of a cure. He also advocates posterior colpoceliotomy for diagnostic purposes, with excision of a fragment for microscopic investigation. This intervention has also a direct therapeutic value. He describes a case in which tubercular peritonitis was complicated by retraction of the bladder simulating a cystic neoplasm. The remote results have proved even more favorable than was anticipated at first, and he finds that a vaginal is as effective as an abdominal incision.

Peculiar Case of Rheumatic Purpura. P. EDEL.—A severe case of rheumatic purpura was distinguished by the fact that in each of the seventeen attacks the left side of the body was first affected. Profuse sweats were also noted, with increased numbers of blood plates, stomatitis and hemorrhages in the skin raised above the surrounding level. The patient was a man of 41, previously well, but addicted to alcohol.

Multiple Typhoid Periostitis. H. CONRADI.—It seems evident that the typhoid bacillus causes only local suppuration when it has lost its specificity. In the case of multiple periostitis six months after typhoid fever, reported in this communication, there was no agglutination reaction. The modified microbes may persist harmlessly in the organism for months and years until some new infection or traumatism restores their former specific activity, when an acute osteomyelitis results.

Treatment of Malaria With Anilin Blue. A. IWANOFF.—Experiences are described in this communication which suggest that the efficacy of methylene blue in the treatment of malaria is not due to its chemical composition, and that other dyes have the same action. A number of striking curves are given showing the prompt cessation of the attacks and constant drop in the temperature with disappearance of the parasites on the administration of .3 anilin blue three times a day.

Naphthalan for Hemorrhoids. M. RAUCH.—The writer accidentally discovered that naphthalan has a remarkable effect in contracting and curing hemorrhoids, in many cases rendering an operation unnecessary. He uses a 20 per cent. suppository in a mixture of cocoa butter, 1.5, with yellow wax, .5. The preparation relieves the pain at once, arrests the hemorrhage and the nodules subside partially or entirely.

Diagnosis and Treatment of Gonorrheal Prostatitis. A. ROTHSCHILD.—The realization of the necessity of revising our diagnostic methods is the chief progress accomplished in the last five years, Rothschild observes, after reviewing the literature of the last decade on the subject of gonorrheal prostatitis. The significance of prostatitis in the pathology of the urinary passages and for the diagnosis of gonorrhea is becoming better and better recognized. The importance of prophylaxis is more generally appreciated and the necessity of careful antiparasitic treatment of fresh infection of the anterior portion of the urethra. This local treatment requires the personal attention, guidance and supervision of the physician more than has been hitherto appreciated.

October 4.

Epidemic Dysentery in Germany. W. KRUSE.—Dysentery or "Ruhr" had quite disappeared in Germany, but of late years it has occurred more or less frequently in certain localities. In Barmen, for instance, where not a case had been known for twenty years until recently, there were 600 cases and 66 deaths during 1899. Kruse made a careful study of this epidemic and announces that the chief feature of the disease is a diphtheritic process on the surface of the colon. He found a bacillus constantly in the twenty-four cases examined, which does not form gas and resembles the typhoid bacillus. The serum of patients had marked agglutinating power. The revival of this supposed extinct epidemic disease is a discouraging commentary on modern preventive methods.

Transformation of Albumin and Elimination of Sugar. T. RUMPF.—In some experiments on particularly large and strong dogs, Rumpf succeeded in demonstrating that during diabetes induced by the administration of phloridzin, the albumin proved the essential source of the elimination of sugar at first. Later, however, a period ensued in which the albumin no longer sufficed to account for the amount of sugar eliminated. During this last period traces of acetic acid appeared in the urine, increasing progressively until the death of the animal. The amount of sugar eliminated can not possibly be attributed to the destruction of albumin alone. In one dog, weighing 120 pounds, about 9 gm. of phloridzin were given during the last five days, with a diet of bacon, with a little ham, and the sugar increased from 15 gm. a day at the beginning of the experiment to 47, 90, 68, 54 and 63.411. The proportion of sugar to the nitrogen increased from 9.7 to 12.2 to 1 of nitrogen. There were no indications of nephritis when the animals were killed to which the retention of nitrogen might have been attributed.

Blackwater Fever. H. ZIEMANN.—Long experience in Cameroon, one of the worst foci for hemoglobinuria in the world, has shown that it is liable to occur in the course of a new malarial attack, with or without quinin, or from the use of quinin alone in persons predisposed by previous malarial infection, although no parasites can be discovered in the peripheral blood at the time. The natives have blackwater fever without ever having taken quinin. In one case Ziemann observed that the hemoglobin in the blood diminished 50 per cent. in two days. His experience confirms the fact that by the cautious administration of quinin, even with extreme idiosyncrasy against it, and coexisting malarial infection, it is possible to accustom the organism to the quinin and cure the malaria in time. He mentions one case as unique, in which .01 gm. quinin invariably induced hemoglobinuria and .004 albuminuria.

Treatment of Douglas' Abscesses in Perityphlitis. J. ROTTER.—An abscess in Douglas' pouch should always be opened from below, through the rectum in men and virgins and through the vagina in suitable cases, although the rectum is really preferable for all. If resistance is still felt after evacuation it indicates a second abscess not communicating with the first. This is reached through an abdominal incision. By proceeding in this manner infection of the abdominal cavity is prevented and the course of healing accelerated, as the lesion is drained at the lowest point. All the twenty-five cases thus treated have been promptly cured. The rectal wall is first punctured and then a small pair of forceps with pointed ends, made to fit close over the needle, are applied and, guided by the needle, are pushed through the rectal wall into the abscess. Spreading the branches to enlarge the opening, the pus escapes through the anus. The folds of the rectal wall seem to form a valve over the small opening, which prevents the passage of fecal matters into the abscess. No drain nor dressing is applied, but the wound left to heal spontaneously, with two or three weeks' rest in bed. In 45 collected cases of Douglas' abscesses, 3 died out of 9 operated on through the abdomen, while only 2 have died out of 35 in which the intervention was made from below as described.

Memorabilien (Heilbronn), October 2.

Indican in Urine and Sweat. BETZ and AMANN.—Indicanuria may be hereditary. The indican is most readily detected in the urine during ammoniacal fermentation. The second writer recently observed a case in which the body and

bed-linen were spotted with tiny specks of blue, which proved to be indican eliminated through the skin. The urine in this case contained 45 mg. indican to the liter.

Wiener Medicinische Wochenschrift, September 25 and October 2.

Ankylosis in Spinal Affections. A. KUEHN.—The attempt to classify ankylosis-inflammation of the spine as a distinct morbid entity has failed. A case is described which differs from the Struempell-Marie type only in the involvement of the smaller joints, without ankylosis. The patient is a girl of 12 years, with rhachitic and hereditary rheumatic antecedents, and the affection is evidently a pronounced case of arthritis deformans, distinguished by the formation of tongues and bridges of bone, ankylosis and ossification of ligaments and tendons.

Dissemination of Cancer. F. REICHE.—A special study has been made of the occurrence of cancer at Hamburg, and in this article statistics are tabulated which demonstrate that the dissemination of cancer has no appreciable connection with the supply nor the quality of the water, nor with the density of the population, wealth or poverty, nor with the higher or lower elevation above the river of different portions of the city. The figures also show that cancer of the chiefly affected organ, the alimentary canal, has not increased during the last twenty-eight years out of proportion to the rest. This fact disproves the recently advanced theory that the general increase in the spread of cancer is due to the more abundant meat diet. This theory is also controverted by the fact that cancer does not occur predominantly in gouty subjects.

Traumatic Spondylitis. M. OBERST.—The cases diagnosed as traumatic spondylitis are shown by radiography to be in reality fractures from compression, with none of the assumed rarefying ostitis. Oberst illustrates three cases of a slight prominence of two or three of the spinal processes in normal subjects. If a traumatism had preceded, this prominence might have been the basis for the mistaken diagnosis of traumatic spondylitis if functional disturbances due to a fracture had followed.

October 2.

Investigation of the Stomach in Chlorotics. O. ROSTOWSKI.—Gastroptosis was not a constant accompaniment of the chlorosis in the fifty patients examined, but was found in only 26 per cent. Out of this number nearly every patient had commenced to wear corsets before 14 or 15 years of age. In investigating the position of the stomach an inflated loop of intestine frequently lay in front of the stomach and simulated a misplaced organ.

Cure of Spina Bifida. C. HENNEMANN.—A 2-year-old child was cured of a spina bifida by aspirating the fluid and injecting Lugol's solution into the pocket. The tumor filled again with fluid to the size of a fist in six days; the contents were again aspirated and the iodin solution injected. The tumor required aspirating a third time a week later, when it was the size of a child's head, and 600 c.c. of clear fluid was removed. Since that time the irritation induced in the cavity has caused retraction and the tumor has not recurred.

Treatment of Habitual Luxation of the Shoulder. J. MUELLER.—Permanent cure of habitual luxation of the shoulder can only be attained by energetic intervention. If the bony parts are intact all that is necessary is to make the capsule smaller. If the bony apparatus is not intact, resection of the head of the humerus is indicated.

Wiener Klinische Rundschau, August 12, September 16, 28 and 30.

Therapeutic Value of Lumbar Puncture. M. HIRSCH.—The cases of meningitis that have been actually and permanently cured by lumbar puncture are rare. The improvement frequently mentioned is usually transient. Hirsch describes a case in which intense headache, delirium and fever persisted, the patient was a young man with no previous ear or nasal affection and no record of an infectious disease of any kind. Six months previously he had been hit on the side of the head with a stone. The condition became progressively worse, with paresis of the facial nerve and of the abducent on the other side, etc. Lumbar puncture and the removal of 25 c.c. of cerebrospinal fluid was followed by the permanent lowering of the temperature, which occurred abruptly during the night, and subsidence of all the symptoms. The patient was dismissed completely cured except for a slight paresis of the abducent, which persists still, several months later.

September 16.

Instruments for Endovesical Operations in the Female. W. LATZKO.—The principle of Latzko's improved instrumentarium is the separation of the cystoscope from the catheter, curette, etc. He claims that the curette and catheter are best inserted separately, before the cystoscope, and that the slender stem is not in the way. His sound is graduated by centimeters, and thus frequently affords valuable information as to the distances of the objects seen through the cystoscope. He applies the same principle to catheterization of the ureters, using a flexible tube fitted into the handle, which holds the curette, tube or sound at an angle of about 120 degrees. The ureter catheter is inserted in the tube, which is then introduced into the bladder and later the cystoscope. The chief advantage of the improvement is the facility of endovesical operations even in inexperienced hands and the suppression of the channel in the cystoscope, which is difficult to sterilize without injury to the instrument. The rest of the instruments can be boiled.

September 23.

Vaccin Infection of the Lips. A. JUNGMANN.—Two cases of extravaccination pustules are related, one a nurse, who became inoculated with pustules on the lips while tending a vaccinated infant. In the other case a fragment of the vial containing the lymph broke off and alighted on the physician's nose, with the formation of a pustule at the spot.

September 30.

Sympathetic Irritation of the Eyes. BAECK.—It is impossible to distinguish between the sympathetic irritation which is merely transient congestion and that which is the preliminary stage of sympathetic inflammation. Baeck enucleates the primarily affected eye in such cases when the symptoms of the sympathetic irritation persist longer than three days in spite of instillations of cocain, etc. If vision is already lost he enucleates at once.

Wiener Klinische Wochenschrift, September 27 and October 4.

Elevation of the Uterus. H. LUDWIG.—A large cyst developing in the abdomen of a girl of 12 carried the uterus up with it, detaching it from the vagina, with dehiscence of the cervix. The only other instance of the kind Ludwig has been able to discover in the literature was caused by a dermoid cyst in a child 3½ years old.

Hyperglobulia and Splenomegalia. V. COMINOTTI.—An enormous spleen was removed from a patient in whose blood the reds varied from 6,500,000 to 7,500,000, with 6000 to 7200 whites, and hemoglobin 70 to 80 per cent. The reds were pale and of variable diameter. Increase in the number of hematoblasts was noted and eosinophilc cells and isolated transition forms, but no pigment nor parasites. The reds stained poorly. The patient succumbed to sepsis fifty-two days after the splenectomy. In another patient, nine years after splenectomy had been performed for malarial tumefaction, the reds numbered 5,500,000 to 7500 whites, with 60 per cent. hemoglobin. The erythrocytes were poor in hemoglobin, with slight coin-roll formation; the small mononucleated were predominant, the eosinophile cells increased and there was marked increase in the hematoblasts. The polynucleated leucocytes numbered 40 per cent., the large mononucleated 1, small mononucleated 47, transitional forms, 2, and eosinophile cells 10 per cent. This patient was in the sixth month of pregnancy and complained of headache and gastric oppression, with a darting pain in the left hypochondrium for the last few months.

Pseudo-Membrane Formation After Tonsillotomy. L. HARMER.—After every tonsillotomy a pseudo-membranous layer develops on the wound within twenty-four hours, more or less rudimentary. It consists of fibrin, leucocytes and necrotic fragments from the wound. Bacteria abound in it, principally cocci, and they are probably involved in its produc-

tion. A bacillus is also constantly found resembling the pseudo-diphtheria micro-organism. In times of epidemic diphtheria tonsillotomy should be postponed.

October 4.

Movement Phenomenon in Mouth and Throat Sign of Insufficiency of the Aortic Valves. H. SCHLESINGER.—The sign described consists in the pulsation and rhythmic movement or displacements observed in the portions of the mouth and throat most exposed to the influence of the aortic pulsation, especially the tonsils and root of the tongue.

Gazzetta Degli Ospedali (Milan), September 16, 23 and 30.

Cutaneous Oxyuriasis. P. BARRAGALLO.—The invasion of the skin around the anus by the oxyuris has been reported three times. The writer adds a fourth case in which the parasites colonized all over the region, favored by the scratching of the patient to relieve the pruritus caused by the worms.

Pyloroplasty. G. B. SEGALE.—To obviate some of the defects of gastroenterostomy while securing its advantages, Segale proposes an operation in case of stenosis of the pylorus which consists in a curved incision extending longitudinally above and below the constriction. The two lips of the incision are then pulled in opposite directions and the constriction twisted at the same time. The wound is then sutured in this position. The operation has been done twice on man and with eminently satisfactory results in each case.

Large Malarial Spleen Reduced With Iodin. V. PIGA.—A syringeful of one part iodin to two parts potassium iodid in 100 parts water was injected hypodermically in the left hypochondrium in a severe case of malarial infection and much enlarged spleen. Ten injections were made in all and the spleen gradually returned to normal.

September 23.

Success of Salophen in Sciatica. A. GHETTI.—Two rebellious cases of sciatica in women 37 and 50 years of age were relieved of pain with six hypodermic injections of salophen in alkalinized water. Thirty injections induced a permanent cure.

Treatment of Cutaneous Tuberculosis With Guaiacol. G. B. BURZHAGI.—The surface of the cutaneous tuberculous lesion in the case described was painted with a mixture of guaiacol and olive-oil, each 40 gm. in 10 gm. of 60 per cent. alcohol. The ulcerations were located on the leg and were first evacuated and scraped. Cicatrization was complete in twenty-eight days of the guaiacol treatment.

Best Method of Using Gelatin for Hemorrhage. F. S. ROCCHI.—Experimental tests with gelatin testify that the most effective means of administering gelatin to arrest hemorrhage is by the rectum, injecting 50 gm. of a hot 2 per cent. solution. Its action is manifest in five to ten minutes and lasts for six hours. This method obviates dilatation of the cervix in hemorrhagic endometritis and menorrhagia while it is fully as effective as direct local applications.

September 30.

Pneumococcus Conjunctivitis. G. CONSALVO.—An epidemic of conjunctivitis was observed by the writer and the pneumococcus found constantly in the secretions. It is a contagious affection, attacking persons of all ages. The acute attack terminates in about ten days. It has a tendency to become chronic, but remains benign and rarely compromises the integrity of the eye.

Grece Medicale (Syra), September.

Resection of the Vagi in Dogs. R. NICOLAIDES.—A portion of the cervical pneumogastric nerve, 5 cm. long, was resected in three dogs, first on one side and, forty-seven to fifty-seven days later, on the other. Simultaneous bilateral resection kills the animals, but with this interval the disturbances were comparatively slight and the dogs were eating with good appetite in five days, and are still alive, several months later. The number of respirations gradually diminished the day after each operation, but soon returned to the previous condition.

St. Petersburger Medicinische Wochenschrift, September 22.

Operative Treatment of Extroversion of Bladder. E. GRAUBNER.—Extremely satisfactory results were obtained by a Maydl operation on a girl of 16 who suffered from congenital extroversion of the bladder and total incontinence. The ureters were implanted in the sigmoid flexure. Continence is complete; the patient is robust and nothing during the eighteen months since the operation indicates a tendency to ascending pyelonephritis or paralysis of the sphincter ani.

Books and Pamphlets.

Acknowledgement of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review as dictated by their merits, or in the interest of our readers.

A DICTIONARY OF MEDICAL SCIENCE.—Containing a Full Explanation of the Various Subjects and Terms of Anatomy, Physiology, Medical Chemistry, Pharmacy, Pharmacology, Therapeutics, Medicine, Hygiene, Dietetics, Pathology, Bacteriology, Surgery, Ophthalmology, Otology, Laryngology, Dermatology, Gynecology, Obstetrics, Pediatrics, Medical Jurisprudence, Dentistry, Veterinary Science, etc. By Robley Dunglison, M.D., LL.D., Late Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia. Twenty-second Edition, with Appendix, Thoroughly Revised and Greatly Enlarged, and with the Pronunciation, Accentuation, and Derivations of the Terms, by Richard J. Dunglison, A.M., M.D. Cloth. Pp. 1376. Price, $7.00. Philadelphia and New York: Lea Brothers & Co. 1900.

AN AMERICAN TEXT-BOOK OF PHYSIOLOGY. By Henry P. Bowditch, M.D.; John G. Curtis, M.D.; Henry H. Donaldson, Ph.D.; W. H. Howell, Ph.D., M.D.; Frederic S. Lee, Ph.D.; Warren P. Lombard, M.D.; Graham Lusk, Ph.D., F. R. S., (Edin.); W. T. Porter, M.D.; Edward T. Reichert, M.D.; Henry Sewall, Ph.D., M.D. Edited by William H. Howell, Ph. D., M.D., Professor of Physiology in the Johns Hopkins University, Baltimore, Md. Second Edition, Revised. Vol. I. Blood, Lymph, and Circulation; Secretion, Digestion, and Nutrition; Respiration and Animal Heat; Chemistry of the Body. Cloth. Pp. 598. Price, $3.00. Philadelphia: W. B. Saunders & Co. 1900.

A MANUAL OF SYPHILIS AND THE VENEREAL DISEASES. By James Nevins Hyde, A.M., M.D., Professor of Skin, Genito-Urinary, and Venereal Diseases, Rush Medical College, Chicago, and Frank Hugh Montgomery, M.D., Associate Professor of Skin, Genito-Urinary, and Venereal Diseases, Rush Medical College, Chicago. Second Edition, Revised and Enlarged. With 58 Illustrations in the Text, and 19 full-page Lithographic Plates. Cloth. Pp. 594. Price, $4.00. Philadelphia: W. B. Saunders & Co. 1900.

A BOOK OF DETACHABLE DIET LISTS. For Albuminuria, Anemia, and Debility, Constipation, Diabetes, Diarrhea, Dyspepsia, Fevers, Gout or Uric Acid Diathesis, Obesity, Tuberculosis, and a Sick-Room Dietary: Compiled by Jerome B. Thomas, Jr., A.B., M.D., Instructor in Materia Medica, Long Island College Hospital. Second Edition, Revised. Cloth. Price, $1.25. Philadelphia: W. B. Saunders. 1900.

TWENTIETH CENTURY PRACTICE. An International Encyclopedia of Modern Medical Science by Leading Authorities of Europe and America. Edited by Thomas L. Stedman, M. D., New York City. In Twenty Volumes. Volume XX. Tuberculosis, Yellow Fever, and Miscellaneous, General Index. Cloth, Pp. 906. Price, $5.00. New York: William Wood & Co. 1900.

RHINOLOGY, LARYNGOLOGY AND OTOLOGY AND THEIR SIGNIFICANCE IN GENERAL MEDICINE. By E. P. Friedrich, M. D., Privatdocent at the University of Leipzig. Authorized Translation from the German. Edited by H. Holbrook Curtis, M. D., Consulting Surgeon to the New York Nose and Throat Hospital. Cloth. Pp. 348. Price, $2.50. Philadelphia and London: W. B. Saunders & Co. 1900.

PRACTICAL MANUAL OF DISEASES OF WOMEN AND UTERINE THERAPEUTICS FOR STUDENTS AND PRACTITIONERS. By H. Macnaughton-Jones, M.D., M.Ch., Master of Obstetrics (Honoris Causa), Royal University of Ireland. Eighth Edition, Revised and Enlarged with 640 Illustrations and 28 Plates. Cloth. Pp. 935. Price, $5.00. New York: William Wood & Co. 1900.

TEXT-BOOK UPON THE PATHOLOGIC BACTERIA FOR STUDENTS OF MEDICINE AND PHYSICIANS. By Joseph McFarland, M.D., Professor of Pathology in the Medico-Chirurgical College, Philadelphia. With 142 Illustrations. Third Edition, Revised and Enlarged. Cloth. Pp. 621. Price, $3.25. Philadelphia: W. B. Saunders & Co. 1900.

HEART DISEASES IN CHILDHOOD AND YOUTH. By Charles W. Chapman, M.D., Durh., M.R.C.P., Lond., Physician to the National Hospital for Diseases of the Heart. With an Introduction by Sir Samuel Wilks, Bart., M.D., F.R.S., Physician Extraordinary to H. M. the Queen. Cloth. Pp. 98. Price, 3s. 6d. London: The Med. Publishing Co., Ltd.

A TEXT-BOOK OF THE DISEASES OF WOMEN. By Henry J. Garrigues, A.M., M.D., Gynecologist to St. Mark's Hospital in New York City. With 367 Illustrations. Third Edition, Thoroughly Revised. Cloth. Pp. 756. Price, $4.50. Philadelphia: W. B. Saunders & Co. 1900.

BACTERIOLOGY AND SURGICAL TECHNIQUE FOR NURSES. By Emily M. A. Stoney, Superintendent of the Training School for Nurses, St. Anthony's Hospital, Rock Island, Ill. Illustrated. Cloth. Pp. 190. Price, $1.25: W. B. Saunders & Co. 1900.

A SHORT PRACTICE OF GYNECOLOGY. By Henry Jellett, B.A., M.D., B.Ch., B.A.O. (Dublin University), F.R.C.P.I., L.M., Late Assistant Master, Rotunda Hospital. With 125 Illustrations. Cloth. Pp. 436. Price, $2.63. London: J. & A. Churchill. Philadelphia: P. Blakiston's Son & Co.

THE ATTAINMENT OF WOMANLY BEAUTY OF FORM AND FEATURES. The Cultivation of Personal Beauty Based on Hygiene and Health Culture by Twenty Physicians and Specialists. Edited by Albert Turner. Cloth. Pp. 256. Price, $1.00. New York: Health-Culture Co.

ULCERATION OF THE BLADDER: Simple, Tuberculous, and Malignant. By E. Hurry Fenwick, F. R. C. S., Surgeon of the London Hospital. Cloth. Pp. 85. Price, $1.75. London: J. & A. Churchill. Philadelphia: P. Blakiston's Son & Co.

HERNIA: Its Etiology, Symptoms and Treatment. By W. McAdam Eccles, M. S. (Lond.), F.R.C.S. (Eng.), Assistant Surgeon West London Hospital. Cloth. Pp. 231. Price, $2.50. New York: Wm. Wood & Co. 1900.

TRANSACTIONS OF THE COLORADO STATE MEDICAL SOCIETY. Thirtieth Annual Convention. By-laws and List of Members. Cloth. Pp. 446. Denver: Published for the Society.

PAMPHLETS.

A SIMPLE OPERATION FOR DIVERGENT STRABISMUS. CHANGE OF REFRACTION FROM COMPOUND HYPERMETROPIC ASTIGMATISM TO COMPOUND MYOPIC ASTIGMATISM—GLAUCOMA. IMPLANTATION OF A GLASS BALL INTO THE ORBITAL CAVITY. IRITIS: ITS TREATMENT. STRABISMUS: MULES' OPERATION. EPIPHORA; LACHRYMAL ABSCESS; CONGENITAL ABSENCE OF LACHRYMAL PUNCTAE; STRICTURE OF THE LACHRYMAL DUCT. By L. Webster Fox, A.M., M.D., Philadelphia. Reprints.

A CASE OF TRAUMATIC VARIX OF THE ORBIT IN WHICH LIGATION OF THE LEFT COMMON CAROTID ARTERY WAS SUCCESSFULLY PERFORMED. A CLINICAL AND HISTOLOGIC STUDY OF A CASE OF MELANOTIC SARCOMA OF THE CHOROID PRESENTING SYMPTOMS OF SECONDARY GLAUCOMA. CLINICAL STUDY OF THE OCULAR SYMPTOMS FOUND IN SO-CALLED POSTERIOR SPINAL SCLEROSIS. GUMMA OF THE IRIS AND CILIARY BODY. RECOVERY WITH NORMAL VISION. RECOVERY OF VISION BY AN IRIDECTOMY; WITH REMOVAL OF LENS-DEBRIS IN A CASE OF BLINDNESS OF MORE THAN THIRTEEN YEARS' DURATION. By Charles A. Oliver, A.M., M.D., Philadelphia. Reprints.

CATAPHORESIS IN TRACHOMA. REPORT OF A CASE OF DOUBLE MASTOIDITIS—OPERATION—RECOVERY. By Geo. F. Keiper, M.D., Lafayette, Ind. Reprints.

COMPOUND FRACTURES. EXCISION OF HIGH RECTAL CARCINOMA WITHOUT SACRAL RESECTION. By N. Senn, Ph.D., LL.D., Chicago. Reprints.

MALFORMATION OF THE UTERUS. By Frank T. Andrews, M.D., Chicago. Reprinted from Amer. Gyn. and Obs. Jour.

MYOTHERAPY. By Nathan Herman, M.D., Baltimore, Md. Reprinted from Md. Med. Jour.

STUDIES IN PANCREATIC DIGESTION. Made with Pancreatic Juice. By B. K. Rachford, M.D., Professor of Therapeutics, Medical College of Ohio. Paper. Pp. 99. Cincinnati, Ohio: Cincinnati Lancet Press. 1900.

SPECIAL CLASSES FOR MENTALLY DEFECTIVE SCHOOL CHILDREN. By Walter Channing, M.D. Reprinted from Charities Review.

SUCCESSFUL TREATMENT OF VARIOLA AND IMPROVED METHOD OF VACCINATION-VACCINOID. By V. Lehmann, M.D., Hahnville P. O., La. Reprinted from N. O. Med. and Surg. Jour.

SUMMARIZED REPORT OF FOURTEEN YEARS' WORK IN ABDOMINAL SURGERY. By F. F. Lawrence, M.D., D.Sc., Columbus, Ohio. Paper. Pp. 11.

THE COMPARATIVE VALUE OF ENUCLEATION AND THE OPERATIONS WHICH HAVE BEEN SUBSTITUTED FOR IT. By G. E. de Schweinitz, A.M., M.D., Philadelphia. Paper. Pp. 44.

TRANSACTIONS OF THE FLORIDA MEDICAL ASSOCIATION FOR THE YEAR 1900. Held at Orlando, Fla., April 11 and 12. Paper. Pp. 113. Jacksonville, Fla.: East Florida Printing Co. 1900.

Change of Address.

James Alderson, 562 Julien Ave., to 135 Delphi St., Dubuque, Iowa.
R. Bellamy, Newport, R. I., to 35 W. 31st St., New York City.
A. H. Barr, 1265 Esplanade Ave., to 2722 St. Charles Ave., New Orleans, La.
E. M. Brewer, Rankin, to 103 W. Front St., Bloomington, Ill.
W. H. Boone, Catlin, to Sidell, Ill.
E. W. Baum, 1129 Lill Ave., Chicago, to Morocco, Ind.
C. E. Case, Tacoma, to Seattle, Wash.
J. W. McCready, 81 E. 116th St., New York City, to Sewickley, Pa.
C. C. Carroll, 21 E. 24th St., to 251 5th Ave., New York City.
J. S. Conway, Streator, Ill., to Joplin, Mo.
J. B. Dickinson, Jersey, O., to Cobham, Va.
M. Dovidoff, 214, to 249 E. Broadway, New York City.
F. M. Dyer, 457 Cumberland St., to 686 Congress St., Portland, Maine.
M. A. Duncan, Buxton, to Chanute, Kan.
L. E. Flannagan, Charlottesville, Va., to Napoleonville, La.
A. T. Finch, Clarksville, to Boydton, Va.
J. R. Garner, 302 2nd Ave., to 7 Livingston Pl., New York City.
T. W. Greenley, Loon Lake, to Saranac Lake, N. Y.
E. Chas. Hughes, Times Blk., Racine, to Iron Blk., Milwaukee, Wis.
J. N. Harrison, Eagle Blk., to Hooper Blk., Salt Lake City, Utah.
J. A. Hart, Geneva, N. Y., to Colorado Springs, Colo.
F. Hilts, Humbolt, Kan., to City Hospital, Kansas City, Mo.
E. J. Heinig, Michigan City, Ind., to Killbuck, Ohio.
S. R. Herring, Ingalls, to Warren, Ark.
C. C. Jones, 2117 Market St., Galveston, to Brock, Texas.
P. L. Jermane, Grandin, Mo., to Holton, Kan.
J. E. Johnson, Leadville, to 315 W. 12th St., Denver, Colo.
B. Kinsell, 828 Market St., Galveston, Tex., to 110 Honore St., Chicago.
J. E. King, Centreville, to 24 S. 9th St., Richmond, Ind.
R. R. Loomis, Brock, Mo., to Colusa, Ill.
R. Lull, 3907 Prairie Ave., to 173 51st St., Chicago.
V. F. Marshall, 782 to 810 College Ave., Appleton, Wis.
V. F. Mueller, Metropolitan Blk., to 3rd and Prairie Sts., Milwaukee, Wis.
E. S. McKee, 639 W. 7th St., to 2112 Grand St., Cincinnati, O.
P. J. McCaffrey, 1506 Superior St., to 215 Lake St., Cleveland, O.
E. W. Meis, Dyersville, to Holy Cross, Iowa.
J. W. Montgomery, Landes, to Toledo, Ill.
M. H. Mack, 3000, to 3505 Indiana Ave., Chicago.
C. M. Nichols, Philadelphia, Pa., to 29 N. Ohio Ave., Atlantic City, N. J.
W. J. Nix, Batesville, to Aragon, Ga.
D. W. Owens, Colorado Springs, Colo., to Hersman, Ill.
L. W. Rowell, 45 Loomis St., to 479 Dearborn Ave., Chicago.
A. J. Strange, Edgard, to 841 N. Rampart St., New Orleans, La.
W. E. Troxell, Ehrenfeld, to Lilly, Pa.
A. C. VanDuyn, 52nd and Cottage Grove, to 4760 Champlain Ave., Chicago.
J. H. Van Eman, 1326 Forest Ave., to 1233 Grand Ave., Kansas City, Mo.
A. W. Vanneman, 1060 Maple Ave., Los Angeles, Cal., to Hermosillo, Sonora, Mexico.
S. S. Willis, 782, to 810 College Ave., Appleton, Wis.
Elizabeth White, Romney, to Parkersburg, W. Va.
F. N. Wilson, 24 W 50th St, to 98 Central Park West, New York City.
J. P. Welch, Cottonwood, to Awitman, Ariz.
C. A. Werner, Harcourt, to 1118 27th St., Des Moines, Iowa.
J. H. Wood, Champaign, Ill., to Hammond, La.
C. E. Weber, 4304 Grand Boul., to 155 E. 25th St., Chicago.
W. M. Woods, Denver, to Aylmer, Colo.

The Public Service.

Army Changes.

Movements of Army Medical Officers under orders from the Adjutant-General's Office, Washington, D. C., Oct. 4 to 10, 1900, inclusive:

Charles N. Barney, acting asst.-surgeon, member of a board at Fort Monroe, Va., for the examination of officers for promotion, vice Leigh A. Fuller, lieutenant and asst.-surgeon, U. S. A., relieved.

William C. Borden, captain and asst.-surgeon, U. S. A., member of a board at Washington, D. C., to examine medical officers of the army for promotion, vice E. L. Munson, captain and asst.-surgeon, U. S. A., relieved.

Harry A. Cossitt, acting asst.-surgeon, previous orders, directing him to proceed from Morris Plains, N. J., to San Francisco, Cal., for assignment with troops going on foreign service, revoked.

James H. Hysell, major and surgeon, U. S. V., former orders revoked; he will report to the commanding officer, Department of Eastern Cuba, for duty as chief surgeon of that department, to relieve Major Lawrence C. Carr, surgeon U. S. V.

Burke L. Johnson, acting asst.-surgeon, relieved from duty in the division of the Philippines to report to the Surgeon-General at Washington, D. C., for instructions; leave of absence granted.

Frank R. Keefer, captain and asst.-surgeon, U. S. A., member of a board at Fort Monroe, Va., for the examination of officers for promotion, vice R. M. O'Reilly, lieutenant-colonel and deputy surgeon-general, U. S. A., relieved.

Louis S. Tesson, major and surgeon, U. S. A., to report to the commanding general, Department of the Columbia, for duty as chief surgeon of the department in addition to his duties as surgeon, Vancouver Barracks, Wash.

William R. Van Tuyl, acting asst.-surgeon, from Jefferson Barracks, Mo., to post duty at Fort Thomas, Ky.

Nelson W. Wilson, acting asst.-surgeon, leave of absence granted.

A. A. Woodhull, lieut.-col. and deputy surgeon-general, U. S. A., leave of absence granted.

Navy Changes.

Changes in the Medical Corps of the U. S. Navy for the week ending Oct. 13, 1900:

P. A. Surgeon T. W. Richards, detached from the *Indiana* and ordered to the *Alabama*, Oct. 16.

P. A. Surgeon L. Morris, ordered to the Naval Academy.

Asst.-Surgeon D. H. Morgan, detached from the *Vermont* and ordered to the Pensacola navy yard.

Asst.-Surgeon J. A. Murphy, detached from the Pensacola navy yard and ordered to the Asiatic station for duty on the *Don Juan De Austria*, to report at San Francisco, Cal., Oct. 30, for passage on the *Solace*.

Asst.-Surgeon H. H. Haas, detached from the *Don Juan De Austria*, and ordered home and to wait orders.

Orders Issued by Commander-in-Chief of Asiatic Station.

P. A. Surgeon G. A. Lung, detached from the *Monocacy* and ordered to the Cavite naval station.

Asst.-Surgeon J. C. Thompson, detached from the *Monocacy* and ordered to the Cavite naval station.

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the U. S. Marine-Hospital Service, for the seven days ending Oct 11, 1900:

P. A. Surgeon W. G. Stimpson, granted fifteen days' extension of leave of absence.

Asst.-Surgeon W. C. Hobdy, granted leave of absence for one month from Oct. 3.

Asst.-Surgeon G. M. Corput, relieved from duty at Mullet Key Detention Camp, and directed to proceed to St. Louis, Mo., and report to the medical officer in command for duty and assignment to quarters.

A. A. Surgeon S. B. Hunter, granted leave of absence for seven days.

A. A. Surgeon J. C. Rodman, granted leave of absence for seven days.

Hospital Steward S. W. Richardson, upon expiration of leave of absence, to rejoin station at St. Louis, Mo.

Surgeon G. W. Stoner, granted leave of absence for seven days.

Surgeon C. E. Banks, four days of leave granted by department letter of June 5, revoked.

Surgeon J. H. White, granted leave of absence for one month.

Surgeon R. M. Woodward, detailed to represent the service at the meeting of the American Public Health Association, at Indianapolis, Ind., Oct. 22-26.

P. A. Surgeon J. O. Cobb, to proceed to El Paso, Texas, on special temporary duty.

Asst.-Surgeon H. C. Mathewson, relieved from duty at Philadelphia, Pa., and directed to proceed to San Juan, Porto Rico, and assume command of the service, relieving Asst.-Surgeon C. H. Lavinder.

Asst.-Surgeon C. H. Lavinder, on being relieved from duty at San Juan, Porto Rico, to proceed to Washington, D. C., for orders.

Asst.-Surgeon R. L. Wilson, relieved from duty at San Francisco, Cal., and directed to proceed to Honolulu, H. I., and report to Surgeon Carmichael for duty.

A. A. Surgeon F. M. Clarke, granted leave of absence for twenty days from Oct. 15.

A. A. Surgeon F. W. Goldsborough, granted leave of absence for one day.

A. A. Surgeon Fay Tuttle, granted leave of absence for thirty days from Oct. 24.

Hospital Steward C. C. Allen, granted leave of absence for six days from Oct. 22.

Hospital Steward F. A. Southard, granted leave of absence for fifteen days from Nov. 5.

APPOINTMENT.

Harrington Marr, of Tennessee, appointed acting asst.-surgeon.

RESIGNATIONS.

Asst.-Surgeon Elmer R. Edson, Sept. 22, 1900.
Acting Asst.-Surgeon A. G. Greenstreet, Sept. 30, 1900.
Hospital Steward C. F. Crowley, Sept. 4, 1900.
Acting Asst.-Surgeon Richard Douglas, Oct. 7, 1900.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague, have been reported to the Surgeon-General, U. S. Marine-Hospital Service, during the week ended Oct. 12, 1900:

SMALLPOX—UNITED STATES.

Alaska: Nome, Oct 7, 1 case (in barracks).
Kansas: Wichita, Sept. 29-Oct. 6, 1 case.
Ohio: Cleveland, Sept. 29-Oct. 6, 10 cases.
Pennsylvania: Philadelphia, Sept. 29-Oct. 6, 4 cases.

SMALLPOX—FOREIGN.

Austria: Prague, Sept. 8-15, 1 case.
Brazil: Pernambuco, Aug. 24-31, 4 deaths.
England: Liverpool, Sept. 15-22, 1 case; London, Sept. 15-22, 2 cases.
France: Paris, Sept. 15-22, 3 deaths; St. Etienne, Sept. 1-15, 1 case, 1 death.
Germany: Koenigsberg, Sept. 8-15, 2 cases.
Mexico: Vera Cruz, Sept. 22-29, 1 death.
Russia: Odessa, Sept. 15-22, 11 cases, 2 deaths; St. Petersburg, Sept. 8-15, 9 cases, 5 deaths.
Scotland: Glasgow, Sept. 21-28, 22 cases, 3 deaths.
Yukon Territory: Dawson, Sept. 8, present.

YELLOW FEVER.

Colombia: Barranquilla, Sept. 16-23, 1 death; Cartagena, Sept. 1-14, 3 cases, 3 deaths.
Cuba: Havana, Sept. 22-29, 19 deaths.
Mexico: Vera Cruz, Sept. 22-29, 10 deaths.

PLAGUE.

Paraguay: Asuncion, July 21-28, 2 deaths.
Scotland: Glasgow, Sept. 15-22, 3 cases, 2 deaths.
Wales: Llandoff, Oct. 9, 1 death (imported from Rosario).

CHOLERA.

Straits Settlements: Singapore, Aug. 11-25, 1 death.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

61 Market Street : : Chicago, Ill.

Cable Address: "Medic, Chicago"

Subscription price: Five dollars per annum in advance

Postage in the United States and Canada, Mexico, Hawaii, Guam, Porto Rico, and the Philippines, free; foreign postage, $2.50. Subscriptions may commence at any time. Volumes begin with the first issue of January and of July.

MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION.

The qualifications for membership require that the applicant be a member, in good standing, of a state or local medical society entitled to send delegates to the annual meeting of the AMERICAN MEDICAL ASSOCIATION. A list of these societies will be sent on request. Applications must be accompanied with a certificate showing that the applicant is a member of a recognized society, and should be sent with the annual dues—five dollars—to the treasurer, Dr. Henry P. Newman, 100 Washington Street, Chicago. Members receive THE JOURNAL free. Subscribers to THE JOURNAL may become members of the ASSOCIATION without additional expense if they are members of medical societies recognized by the ASSOCIATION. Those desiring to have their names transferred from the subscription to the membership lists should send certificates as above, with a receipt for their subscription to THE JOURNAL, covering the current fiscal year.

FISCAL YEAR.

The fiscal year of the AMERICAN MEDICAL ASSOCIATION is from January 1 to December 31; and the annual dues paid by a new member cover only the fiscal year, no matter at what time of year the membership is obtained. Those who pay their dues and join the ASSOCIATION at the annual meeting in June, for instance, pay only for the fiscal year which ends with the December following, and the annual dues for the following fiscal year are payable the succeeding January, at which time the treasurer sends a statement to each member. Such members, however, are entitled to THE JOURNAL for the full year, even though the membership be not continued.

PAPERS READ AT THE ANNUAL MEETING.

"Every paper received by this ASSOCIATION and ordered to be published, and all plates or other means of illustration, shall be considered the exclusive property of the ASSOCIATION. . . . The Board of Trustees shall have full discretionary power to omit from the published transactions, in part or in whole, any paper that may be referred to it by the ASSOCIATION or either of the Sections, unless specially instructed to the contrary by vote of the ASSOCIATION." (From Article V of the By-laws.)

NEWS.

Our readers are requested to send us items of news of a medical nature, also marked copies of local newspapers containing matters of interest to members of the medical profession. We shall be glad to know the name of the sender in every instance.

ORIGINAL PAPERS.

Articles are accepted for publication with the understanding that they are contributed solely to this journal.

COPYRIGHT.

Matter appearing in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION is covered by copyright, but as a general thing, no objection will be made to the reproduction of anything appearing in its columns if proper credit be given.

CONTRIBUTIONS TYPEWRITTEN.

It will be satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great to the editor and printer. We can not promise to return unused manuscript.

Half-tones, zinc etchings and other illustrations will be furnished by THE JOURNAL when photographs or drawings are supplied by the author.

ADVERTISEMENTS.

Advertising forms go to press eight days in advance of the date of issue. Therefore, in sending in copy, time should be allowed for setting up advertisements and for the sending and return of proofs. Advertising rates will be made known on request.

CHANGE OF ADDRESS.

In ordering a change of address it is important that both the old and new addresses be given.

REMITTANCES.

Remittances saould be made by check, draft, registered letter, money or express order. Currency should not be sent, unless registered. Stamps in amounts under one dollar are acceptable. Make all checks, etc., payable to "JOURNAL AMERICAN MEDICAL ASSOCIATION," except those for annual dues. These should be made payable and sent direct to the Treasurer, Dr. Henry P. Newman, 100 Washington Street, Chicago.